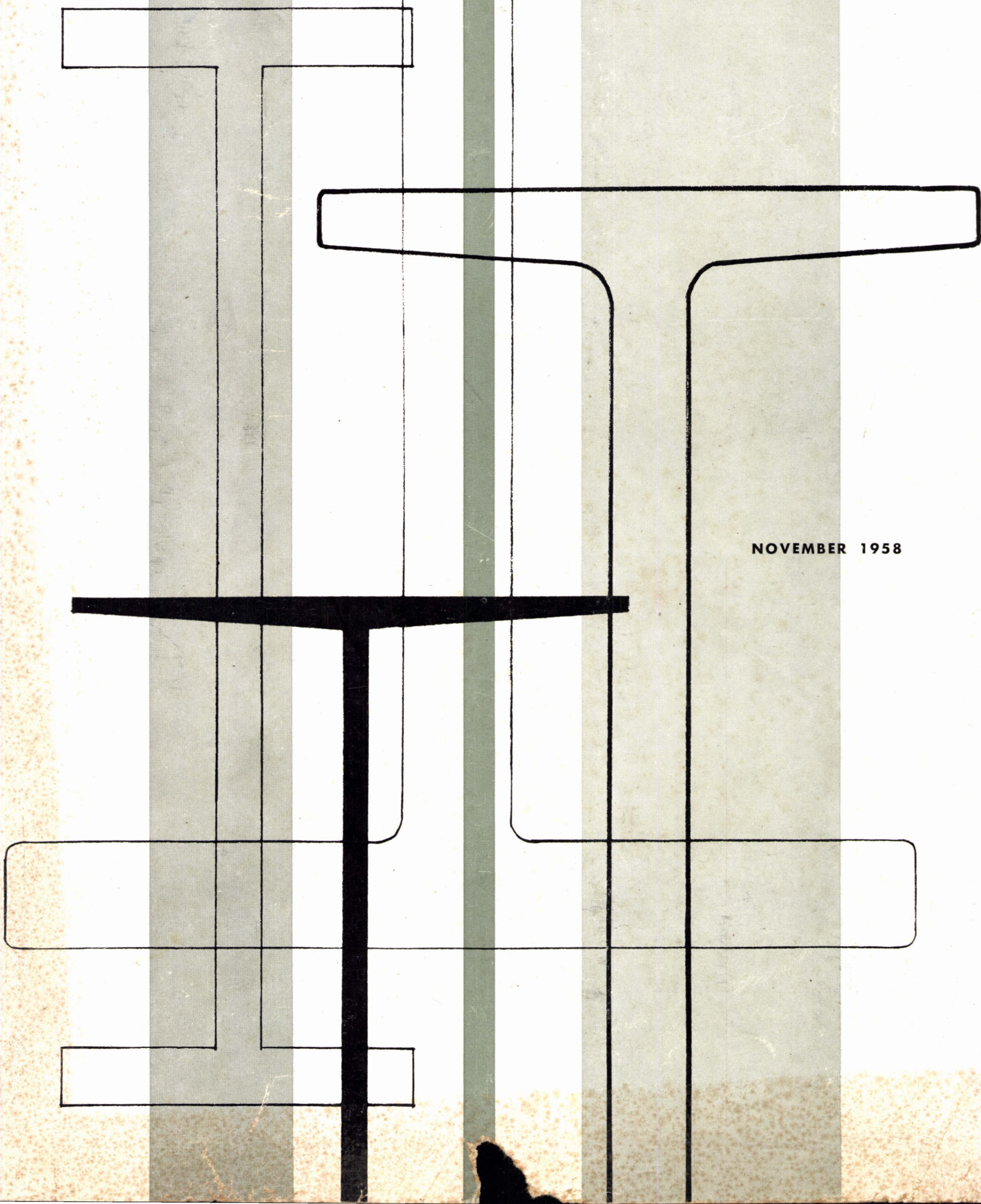


arts & architecture

PRICE 50 CENTS

NOVEMBER 1958



KNOLL ASSOCIATES, INC.,

575 MADISON AVENUE, NEW YORK 22

Boston, Chicago, Dallas, Detroit, Miami, New York, Philadelphia, San Francisco, Washington

Knoll International, Ltd., Brisbane, Brussels, Caracas, Havana, Helsinki, London, Madrid,

Mexico City, Milan, New Delhi, Paris, Stockholm, Stuttgart, Toronto, Zurich.

May we send you information on the Knoll office furniture collection and international facilities?

Sales Area, Deering, Milliken & Co., New York City. Designed by the Knoll Planning Unit.

Carson & Lundin, architects

Herbert Matter photograph



arts & architecture

EDITOR: JOHN ENTENZA

EDITORIAL ASSOCIATES

Dore Ashton
Flora M. Brown
Herbert Matter
James Fitzsimmons
Jules Langsner
Peter Yates
Susan Jonas
Bernard Rosenthal

LAYOUT

John Follis
Charles Kratka
Frederick A. Usher, Jr.

EDITORIAL ADVISORY BOARD

Dr. Grace L. McCann Morley
William Wilson Wurster, A.I.A.
Walter Gropius, A.I.A.
Nathaniel A. Owings, F.A.I.A.
Richard J. Neutra, F.A.I.A.
Welton Becket, F.A.I.A.
George Vernon Russell, F.A.I.A.
Victor Gruen, A.I.A.
Marcel Breuer, A.I.A.
Harris Armstrong, F.A.I.A.
Gardner A. Dailey, A.I.A.
Whitney R. Smith, A.I.A.
John Rex, F.A.I.A.
Mario Corbett, A.I.A.
A. Quincy Jones, A.I.A.
Fred Langhorst, A.I.A.
Raphael Soriano, A.I.A.
John Funk, A.I.A.
Gregory Ain, A.I.A.
Henry Hill, A.I.A.
Ira J. Bach, A.I.P.
Harry Seidler, A.R.A.I.A.
Konrad Wachsmann
Hollis S. Baker
Eduardo F. Catalano
Paul Rudolph
Craig Ellwood
Isamu Noguchi
Finn Juhl
George Nelson
Gyorgy Kepes
Garrett Eckbo
Edgar Kaufmann, Jr.
Dorothy Liebes
Harry Friedland
Esther McCoy
Edward Frank, A.I.D.
Claire Falkenstein
Harold W. Grieve, A.I.D.

ADVERTISING REPRESENTATIVES:

Los Angeles: Thompson & Clark Company
6000 Sunset Boulevard
Hollywood 28, HOLLYWOOD 3-4111
Robert E. Clark

San Francisco: Thompson & Clark Company
681 Market Street
San Francisco, DOUGLAS 2-8547
Jules E. Thompson

Chicago: Richard G. Milford & Associates
161 East Grand Avenue
Chicago 11, WHITEHALL 4-2260
Richard G. Milford

CONTENTS FOR NOVEMBER 1958

ARTICLE

Some Cultural Prerequisites of Science and Art by Harvey Wheeler 26

ARCHITECTURE

Case Study House No. 20 by Buff, Straub & Hensman, architects 12

The Philips Pavilion and The Electronic Poem by Le Corbusier 23

Case Study House No. 21 by Pierre Koenig, architect 29

SPECIAL FEATURES

Art 4

Music 8

Notes in Passing 11

New Furniture from Knoll Associates 28

Merit Specified Products for Case Study House No. 20 30

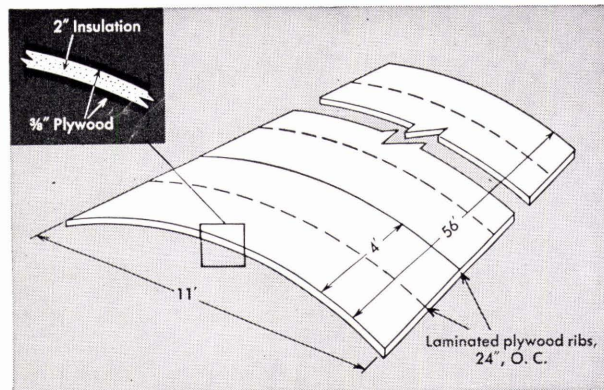
Merit Specified Products for Case Study House No. 21 33

Currently Available Product Literature and Information 35

ARTS & ARCHITECTURE is published monthly by John D. Entenza, 3305 Wilshire Boulevard, Los Angeles 5, California. Established 1911. Entered as second class matter January 29, 1935, at the Post Office, Los Angeles, California, under the Act of March 3, 1879. Price mailed to any address in the United States, \$5.00 a year; to foreign countries, \$6.50 a year; single copies 50 cents. Printed by Wayside Press. Editorial material and subscriptions should be addressed to the Los Angeles office. Return postage should accompany unsolicited manuscripts. One month's notice is required for a change of address or for a new subscription. The complete contents of each issue of ARTS & ARCHITECTURE is available to subscribers in a Microfilm edition.

VOL. 75, No. 11

new approaches to structural design with fir plywood



Prefabricated roof vaults are 11 feet wide at the chord, and 56 feet long (40 foot span plus 8 foot cantilever both ends). Key to system is the outstanding shear strength of the stressed fir plywood skins.

FIR PLYWOOD

ARCHITECT: Theodore T. Boutmy, A. I. A.
George Kosmak, Consultant
John E. Brown, Structural Engineer

PLYWOOD VAULTS designed and engineered
by Berkeley Plywood Co., Oakland

THESE lightweight fir plywood stressed skin barrel vaults designed for a California yacht club provide large clear floor areas at low cost plus an attractive profile and interior.

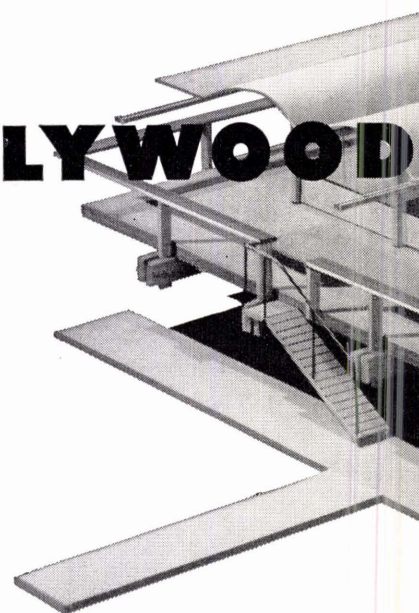
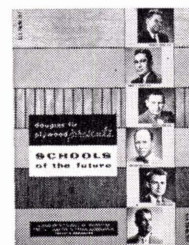
Combining roof decking, insulation and ceiling, the prefabricated vaults span 40 feet from front to rear and 11 feet from valley to valley, without use of beams or trusses. Vaults are cantilevered 8 feet front and rear; spouts which join units at the spring lines extend an additional 10 feet to act as gargoyles in carrying off water.

The roof system provides complete freedom in interior arrangements. Additions can be made simply by adding new vaults or extending the existing ones.

Structurally, the entire roof acts as a rigid plywood diaphragm in transferring lateral loads to the plywood end and shear walls. Two test vaults were successfully used at the San Francisco Arts Festival. Berkeley Plywood is contemplating mass producing the vaults as a standard construction component.

→ **SEND FOR YOUR COPY OF "SCHOOLS OF THE FUTURE"**

... a portfolio collection of outstanding designs by six leading architectural firms. Includes 10-page booklet on fir plywood diaphragm construction. For your free copy, write (USA only) Douglas Fir Plywood Association, Tacoma, Washington. Also write for information about DFPA design and engineering consultation services.



arts & architecture

EDITOR: JOHN ENTENZA

EDITORIAL ASSOCIATES

Dore Ashton
Flora M. Brown
Herbert Matter
James Fitzsimmons
Jules Langsner
Peter Yates
Susan Jonas
Bernard Rosenthal

LAYOUT

John Follis
Charles Kratka
Frederick A. Usher, Jr.

EDITORIAL ADVISORY BOARD

Dr. Grace L. McCann Morley
William Wilson Wurster, A.I.A.
Walter Gropius, A.I.A.
Nathaniel A. Owings, F.A.I.A.
Richard J. Neutra, F.A.I.A.
Welton Becket, F.A.I.A.
George Vernon Russell, F.A.I.A.
Victor Gruen, A.I.A.
Marcel Breuer, A.I.A.
Harris Armstrong, F.A.I.A.
Gardner A. Dailey, A.I.A.
Whitney R. Smith, A.I.A.
John Rex, F.A.I.A.
Mario Corbett, A.I.A.
A. Quincy Jones, A.I.A.
Fred Langhorst, A.I.A.
Raphael Soriano, A.I.A.
John Funk, A.I.A.
Gregory Ain, A.I.A.
Henry Hill, A.I.A.
Ira J. Bach, A.I.P.
Harry Seidler, A.R.A.I.A.
Konrad Wachsmann
Hollis S. Baker
Eduardo F. Catalano
Paul Rudolph
Craig Ellwood
Isamu Noguchi
Finn Juhl
George Nelson
Gyorgy Kepes
Garrett Eckbo
Edgar Kaufmann, Jr.
Dorothy Liebes
Harry Friedland
Esther McCoy
Edward Frank, A.I.D.
Claire Falkenstein
Harold W. Grieve, A.I.D.

ADVERTISING REPRESENTATIVES:

Los Angeles: Thompson & Clark Company
6000 Sunset Boulevard
Hollywood 28, HOLLYWOOD 3-4111
Robert E. Clark

San Francisco: Thompson & Clark Company
681 Market Street
San Francisco, DOUGLAS 2-8547
Jules E. Thompson

Chicago: Richard G. Milford & Associates
161 East Grand Avenue
Chicago 11, WHITEHALL 4-2260
Richard G. Milford

CONTENTS FOR NOVEMBER 1958

ARTICLE

Some Cultural Prerequisites of Science and Art by Harvey Wheeler 26

ARCHITECTURE

Case Study House No. 20 by Buff, Straub & Hensman, architects 12

The Philips Pavilion and The Electronic Poem by Le Corbusier 23

Case Study House No. 21 by Pierre Koenig, architect 29

SPECIAL FEATURES

Art 4

Music 8

Notes in Passing 11

New Furniture from Knoll Associates 28

Merit Specified Products for Case Study House No. 20 30

Merit Specified Products for Case Study House No. 21 33

Currently Available Product Literature and Information 35

ARTS & ARCHITECTURE is published monthly by John D. Entenza, 3305 Wilshire Boulevard, Los Angeles 5, California. Established 1911. Entered as second class matter January 29, 1935, at the Post Office, Los Angeles, California, under the Act of March 3, 1879. Price mailed to any address in the United States, \$5.00 a year; to foreign countries, \$6.50 a year; single copies 50 cents. Printed by Wayside Press. Editorial material and subscriptions should be addressed to the Los Angeles office. Return postage should accompany unsolicited manuscripts. One month's notice is required for a change of address or for a new subscription. The complete contents of each issue of ARTS & ARCHITECTURE is available to subscribers in a Microfilm edition.

VOL. 75, No. 11

ART

DORE ASHTON

JAPANESE AVANTGARDISM

The Gutai group of Osaka, Japan, made its bow in New York this month with an exhibition of paintings at the Martha Jackson Gallery.

The Gutai comprises some twenty-five young artists who group themselves around Jiro Yoshihara, a painter born in 1905 who, after the Second World War, discovered avant-garde European and American painting. Mr. Yoshihara, on the basis of his catholic reading in foreign art journals, came to the conclusion that uninhibited experiment was the way back to art for convention-ridden Japan and relayed—with eminent success—the experiment to his restive younger friends.

They took up the experiment principle with remarkable energy and applied it in as many directions possible—in dance, drama, mime, and a few uncharted areas. In these areas, judging from stills, slides and motion pictures shown in conjunction with the show, Mr. Yoshihara's liberation technique was genuinely fruitful.

The young enthusiasts staged uproarious public "performances" in which theatre and "painting" were provocatively combined. Artists doubled as actors, calling on their senses to inspire three-dimensional settings for the "performances." For example, the painter Shiraga in one of the slides appears in an inspired costume with long, triangular sleeves extending almost the width of the stage. Behind him is his set: flats of paper torn here and there, serving to unify the appearance of actor, action and environment. Drums, we are told, accompany all performances. Motion is essential. (Even down to the motion of the audience hastily leaving the auditorium when, in the last sketch, the artists literally smoke them out!) In these sketches, the concentration is on the image at work in a spatial environment.

In the dramatic arts, then, where gesture and motion are of paramount importance, the Gutai impulse is justified by original results. Sets and performers are related as an entity, and performances are true to the media involved. They combine what Havelock Ellis called

the two primary arts: dance and architecture (which is what sets really are) Ellis defined them as follows:

"Dancing and building are the two primary and essential arts. The art of dancing stands at the source of all the arts that express themselves first in the human person. The art of building or architecture is the beginning of all the arts that lie outside the person; and in the end they unite. Music, acting, poetry proceed in one mighty stream; sculpture, painting, all the arts of design in the other. There is no primary art outside these two arts for their origin is earlier than man himself; and dancing came first."

(Although the sketches shown in the Gutai films are not strictly speaking "dancing", they make use of the human body, clothed to emphasize the expression of the body, as does the classical Kabuki, in the manner of modern dance.)

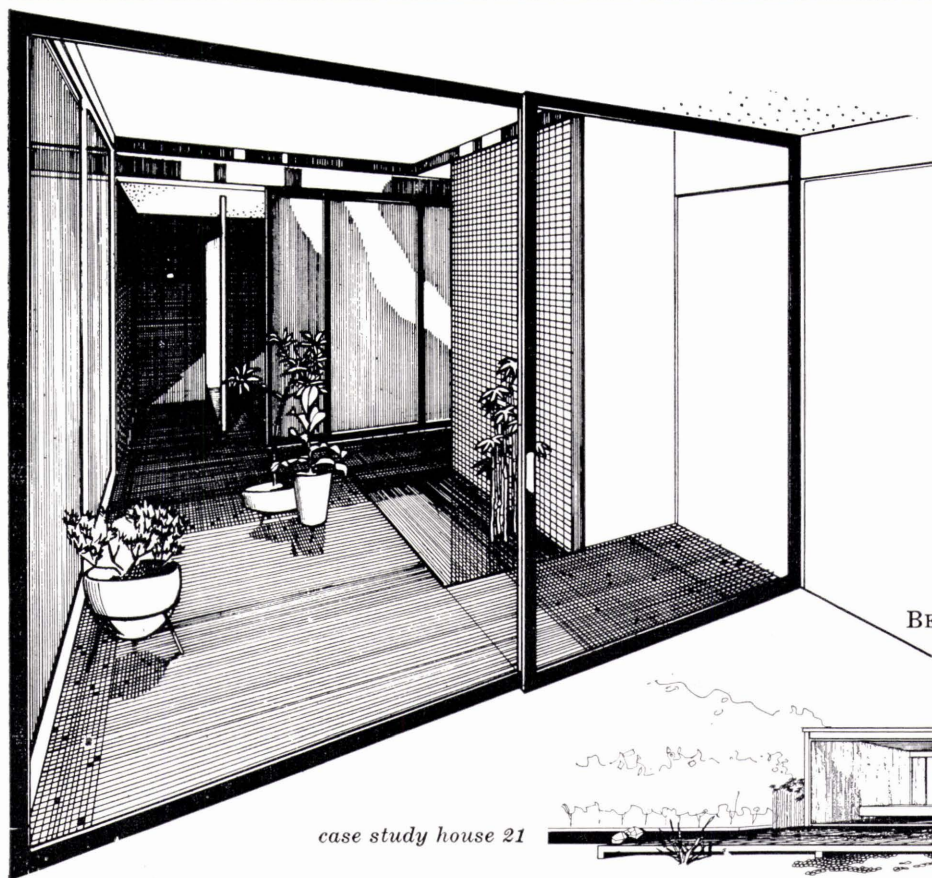
The second mighty stream Ellis defines which carries painting forward has not been forced yet by the Gutai. The paintings they show are thoroughly disappointing (except for the cultivated canvases of Yoshihara himself). Through the audacious scrawls, scribbles, clots and clumps of all kinds of matter applied to canvas or vinyl cloth or paper, one reads only the immature exultation in self-discovery. Automatism is rampant, and the young people who have put their faith squarely in unorthodoxy turn out to be completely orthodox in their devotion to what they believe Jackson Pollock represented. These artists who, in their own context, have so courageously broken out of convention have fallen for a convention perhaps more stultifying: the creeping convention of informal art.

There is nothing wrong, of course, with automatism, informalism, free-wheeling experiment and even imitation for a young artist. Within the Japanese art historical frame, the burst into gesture painting was undoubtedly necessary. But from a broader point of view, the records of personal liberation that these spontaneous works are, have little significance as art.

The discovery of self is a private affair. We do not want to know the details of an artist's suffering but the knowledge he has gained from it at an artistic remove. The vagaries of another's daily chaos can only have a minor meaning for us; if he is an artist, he should be able to sublimate that chaos, give it a form which can be generalized as human experience.



BELLEVUE METAL PRODUCTS



case study house 21

"One of the most important trends today in the construction of homes is the use of sliding glass doors.

"Because of the confidence placed in the architect's careful selection of products used,

I specified Bellevue
— The Standard of Superior Quality."

Pierre Koenig

PIERRE KOENIG, A.I.A.
ARCHITECT

Bellevue Steel Sliding Doors
have been selected for the Case Study Home
program because of their extensive design,
fabrication and superior strength.

Since Bellevue is a Steel Sliding Door
it can be painted for interior and exterior color,
adding warmth and individuality to the home.

BELLEVUE — LOS ANGELES, CALIFORNIA • TUCSON, ARIZONA

These Gutai graphs of shackle-bursting are curiously lifeless. The artists have failed to understand that movement cannot be translated directly on a two-dimensional surface. It must be abstracted and built in temporal steps. The painters in this show try to imitate the "action" required in the staging arts. And, in resorting unimaginatively to the gesture, the artist paradoxically sacrifices the illusion of movement on his canvas. The exhibition looked like the dishevelled remains the day after of what was a gay party the night before. Perhaps as an activity this "free experiment" is stimulating for the artist's fantasy, but the results should be kept in a mental log-book and not exhibited as paintings.

The Gutai are not alone in uncritical acceptance of superficial ideas springing from the "informal" movement. A growing community all over the world has accepted those tenets as if they were a genuine philosophy of art. They are encouraged by spokesman Michel Tapié who has voyaged from Japan to the United States to Europe lining up his team and fitting their likenesses together into what he calls an esthetic of "art autre." This is an art, Tapié explains, owing nothing to "classicism." It is an art dedicated to experiment; an art of its time; an art reflecting advances in science etc., etc. Tapié has chosen his candidates not so much for their individuality but for their common, familiar characteristics.

What Tapié calls "autre" and what others call "informal" is not—as they would have it—outside the stream of art history. If experiment alone were an independent esthetic virtue, then this informal movement would be doomed. Development would be impossible. By analyzing the specific components of "informal" art it is possible to see beyond the "autre" absolute into an unfolding, developing concept of painting which allows for consolidation of the knowledge already culled from a few decades of experiment.

The history of informal painting begins with the rejection of Cubism—all the rejections, in fact, including Dada, and Surrealism. This was not only a rejection of the structural principles of the Cubists, but a decision to regard perceptual matter as only half the story. Painters were moving into a mood in which abstract realities—the kind that reside always and only in the imagination—seemed the proper subjects for expression. The spatial views of the Cubists, with their roots in perceptual phenomena, proved inadequate for the painter of ab-



Jiro Yoshihara

Courtesy: Martha Jackson Gallery

stractions based on states of being or man's relation to the cosmos.

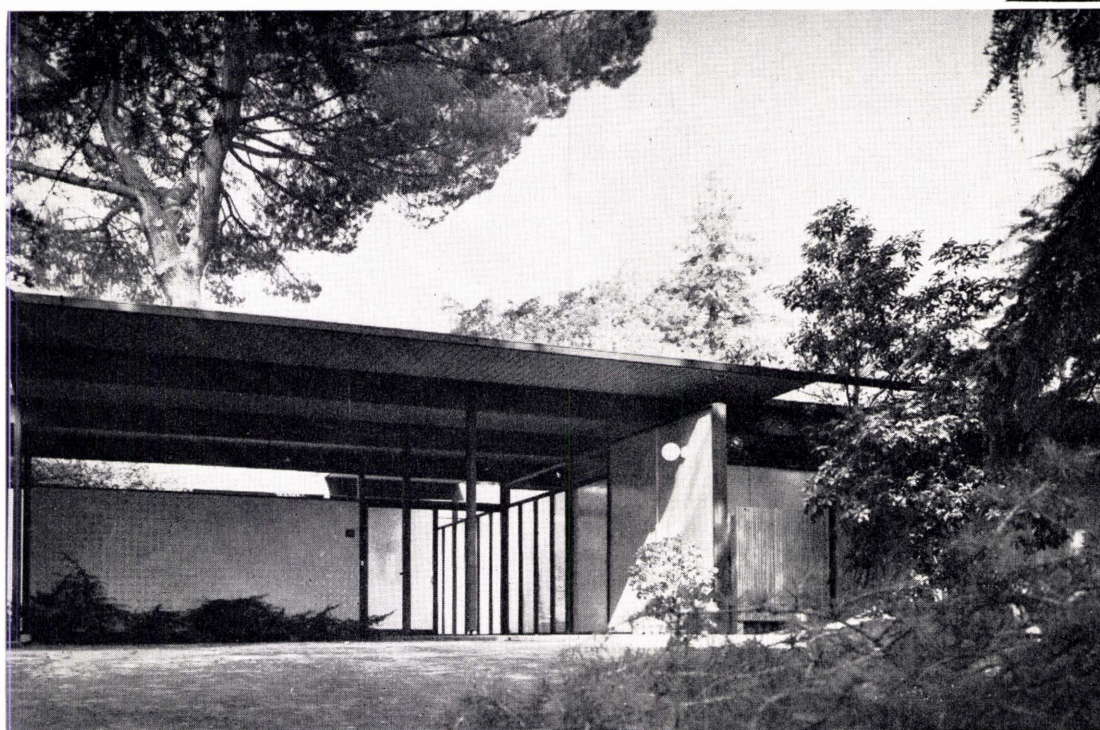
Such artists as Tobey, Wols and Pollock, to mention only a few, accordingly rid themselves of prior notions of space. The three-dimensional attitude was scrapped. In its stead, they tried to find another space which would more nearly suggest their poetic preoccupations.

At the same time, the experiments of the Surrealists in automatic writing lubricated the senses. From the deeper sources artists dredged up the all-over image; the contracted, thin, expanding space which characterizes the work of the painters mentioned above.

Since the subjects of the inner world became possible in painting, it was natural for the artist to feel that he had, as Pollock said, painted himself into the canvas. The traditional objective position of the artist who contemplates his work from a fixed central point outside the canvas was no longer tenable. The barrier of air and light between the artist and his canvas was assaulted, and the artist arrived, albeit within his imagination, in the very heart of his canvas.

Linear expansion and lateral composing characterized one type

(Continued on Page 34)



20

case study house no. 20

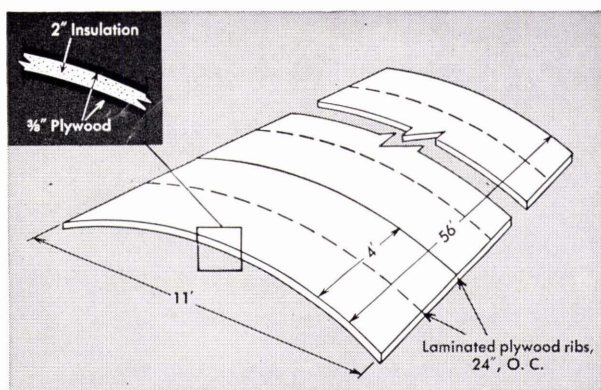
... designed by Buff,
Straub and Hensman, Architects,
in association with Saul Bass.
Interior and exterior illumination
by HOLLIDAY sets a new
trend in lighting —
equal parts of fashion and
function to create a lighting
form in tune with today's
way of living.

BRadshaw 2-7167
CRestview 4-1437

HOLLIDAY LIGHTING CO.

1633 So. La Cienega Boulevard. Los Angeles 35, California

new approaches to structural design with fir plywood



Prefabricated roof vaults are 11 feet wide at the chord, and 56 feet long (40 foot span plus 8 foot cantilever both ends). Key to system is the outstanding shear strength of the stressed fir plywood skins.

FIR PLYWOOD

ARCHITECT: Theodore T. Boutmy, A. I. A.
George Kosmak, Consultant
John E. Brown, Structural Engineer

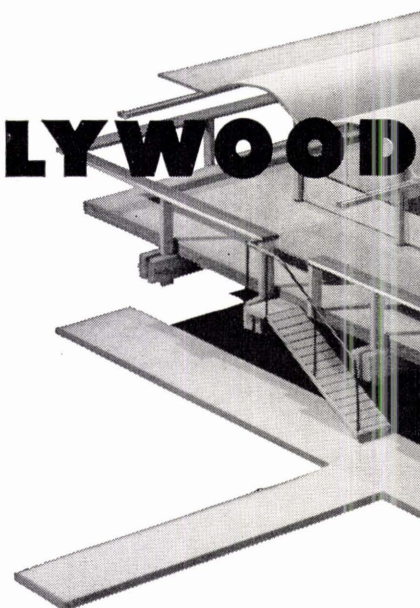
PLYWOOD VAULTS designed and engineered
by Berkeley Plywood Co., Oakland

THESE lightweight fir plywood stressed skin barrel vaults designed for a California yacht club provide large clear floor areas at low cost plus an attractive profile and interior.

Combining roof decking, insulation and ceiling, the prefabricated vaults span 40 feet from front to rear and 11 feet from valley to valley, without use of beams or trusses. Vaults are cantilevered 8 feet front and rear; spouts which join units at the spring lines extend an additional 10 feet to act as gargoyles in carrying off water.

The roof system provides complete freedom in interior arrangements. Additions can be made simply by adding new vaults or extending the existing ones.

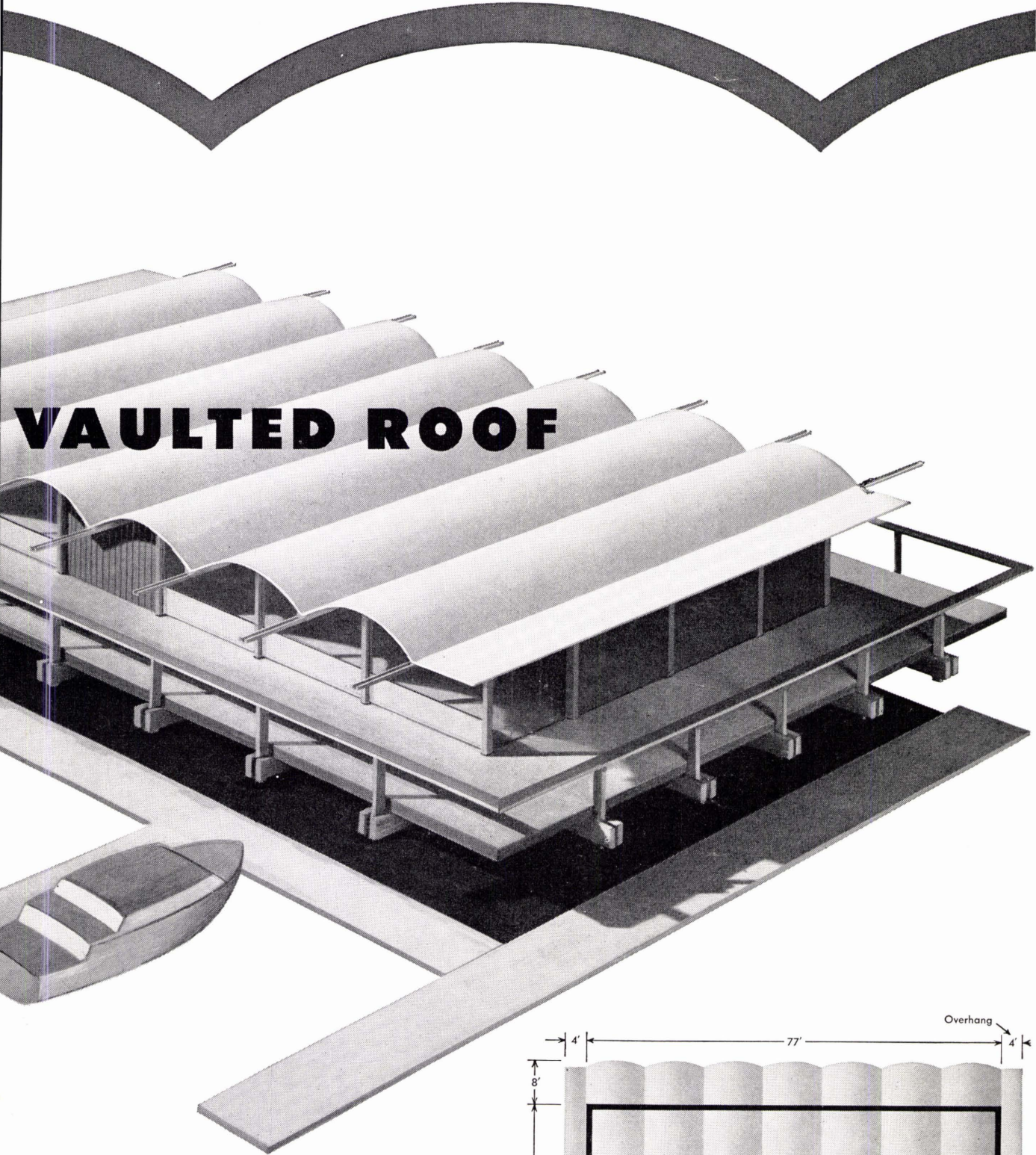
Structurally, the entire roof acts as a rigid plywood diaphragm in transferring lateral loads to the plywood end and shear walls. Two test vaults were successfully used at the San Francisco Arts Festival. Berkeley Plywood is contemplating mass producing the vaults as a standard construction component.



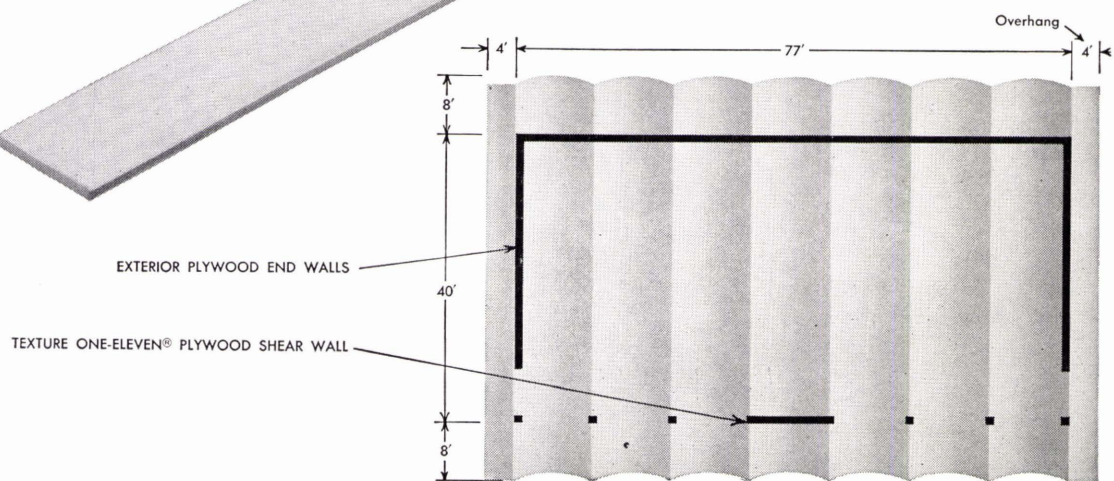
→ **SEND FOR YOUR COPY OF "SCHOOLS OF THE FUTURE"**

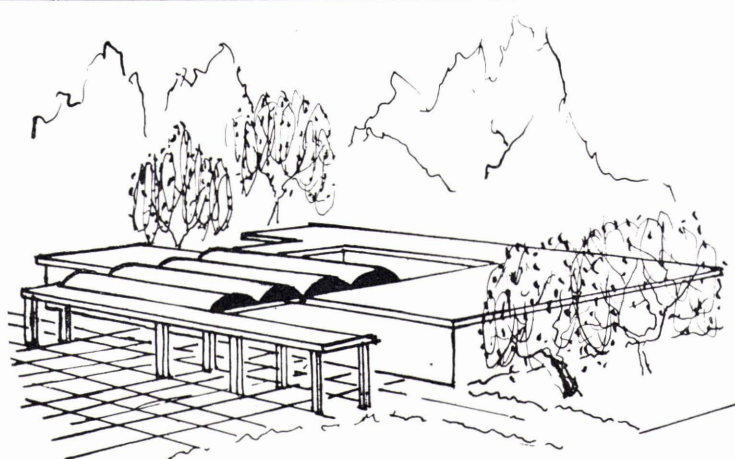
... a portfolio collection of outstanding designs by six leading architectural firms. Includes 10-page booklet on fir plywood diaphragm construction. For your free copy, write (USA only) Douglas Fir Plywood Association, Tacoma, Washington. Also write for information about DFPA design and engineering consultation services.





VAULTED ROOF





DESIGNED BY
BUFF, STRAUB
AND HENSMAN

CASE STUDY HOUSE 20

**NEW!
EXCITING!
VERSATILE!**

PLY-VAULTS*

ENGINEERED • MANUFACTURED • INSTALLED
BY

BERKELEY PLYWOOD COMPANY

ORIGINATORS OF MANY OTHER PLYWOOD BUILDING COMPONENTS SUCH AS *PANELIZED ROOF SYSTEMS *PLY-COM (ELECTRONIC COMPUTOR) FLOORS, *PLY-STRESS PANELS AND *PLY-FRAME TRUSSES.

Oakland • 1401 Middle Harbor Road • GLencourt 2-2808
Los Angeles • 4085 Sheila Street • ANgeles 9-9451
Sacramento • 1331 "T" Street • GILbert 8-2024

*Trademark

MUSIC

PETER YATES

A COLLAGE OF AMERICAN COMPOSERS — Part 1

Six quartets, six chamber compositions, three orchestral works, and a group of pieces for piano solo, all by American composers, if I may include the South American, Camargo Guarnieri: not a bad job in the lot.* Ten composers: let no one tell you American composers are backward in the production of good music. Yet the fact that these American composers may be heard excellently performed on records represents an act of devotion by three American recording companies: I doubt whether, with one exception, any of these records has sold, to put the case politely, more than enough to repay the cost of making it.

The problem now is to sort out these sixteen compositions, take them apart, hear—really hear each one separately and set up some framework for comparison. To begin, I have assembled them in three groups, including the piano with the orchestral pieces.

Tetchy German criticism, during the XIX century, divided commendable new music in two classes: *Kapellmeistermusik* and work of genius. To quote the dependable Scholes: "... any musical director (even in a theatre) came to be called *Kapellmeister*. And as many such officials were men of routine, especially in their compositions, a derogatory term *Kapellmeistermusik* came into use as a description of the well-constructed but uninspired." Today in this country we speak in the same way, but more timidly, of *Academic music*, a special application of a formerly broad term, to describe music written according to the best practices and examples by composers who live, teach and create within the nearly self-contained American academic habit (*settled tendency or practice: mental constitution; bodily constitution; in Botany or Zoology, mode of growth; in archaic speech, dress, especially of religious order*). Where such a habit exists, any heresy or departure from the norm (*standard, pattern, type*) is easily distinguished. It is a fact of life that to succeed within the academic purlieu the student must, let us state the harsh truth frankly, get good grades. It is a fact of life that without grades no composer can earn his living or exert official influence within the groves of academe. It is a fact of life that, lacking such acceptance, any composer, no matter how gifted, will have to scramble for the crusts of recognition and keep himself fed by any means, however sordid, that come handy. The jobs of academe do not pay well but they pay regularly; and there is, besides, status, and the mutual group recognition habit pays to habit, apart from anything taste pays to taste, or judgment pays to genius.

I find the word *genius* indispensable, not to evade the task of recognition but to mark clearly, for present time, the fissure (as far as I can geologically determine it) along which the young mountains creep upwards from foothills and the surrounding plain. These fissures are the source of earthquakes. The geological term for such a fissure is *fault*. A genius is one whose creative working lies the other side the many faults which divide the rising mountain from the plain. His temperament is apt to be craggy or at least exclusive; fires work at him inwards, and his strata thrust out of the ground contrariwise; on his upper levels you may find the debris of old oceans.

Five of our ten composers (Finney, Porter, Smith, Imbrie, Cowell) have to my knowledge academic status. Two (Smith and Manne) are actively performing musicians, as Cowell and Harrison have been, though in a somewhat special sense. Seven at least, and likely all ten, have received grants or won prizes of sizeable amounts of money. I should explain, however, that the cost of reproducing any score is borne, except in special instances, by the composer and may run to several hundred dollars. The ordinary commission paid for a new orchestral work does not usually amount to more than the cost of readying it for playing. This allows nothing for the composer's labor and talent. Academic prestige rewards the academic

*Composers Recordings, Inc.: String Quartet No. 6 by Ross Lee Finney; String Quartet No. 8 by Quincy Porter/ Contemporary Records: String Quartet by William O. Smith; Quartets Nos. 2 and 3 by Andrew Imbrie/ Angel: String Quartet No. 2 by Camargo Guarnieri.

Composers Recordings, Inc.: Eight Etudes and a Fantasy for Woodwind Quartet by Elliott Carter/ Contemporary Records: Capriccio for Violin and Piano, Suite for Violin and Clarinet by William O. Smith; also his Concerto for Clarinet and Combo, using the name Bill Smith; Sophisticated Rabbit by Shelley Manne/ Columbia Masterworks: Toccata by Henry Cowell.

Composers Recordings, Inc.: Persian Set by Henry Cowell; Suite for Violin, Piano, and Small Orchestra by Lou Harrison/ Columbia Masterworks: Lilacs, Portals, Evocations by Carl Ruggles.

composer, and he rises within the hierarchy—always provided that he does not outrage the conventions of the quincade or involve himself in heresy. No quantity of bad music will harm the professional record of an academic composer or even, in my observation, lower appreciably his chance of having it played. No archaism of opinion will hasten his retirement. I am sorry that I can think of no example of the other sort, a work by an academic composer so outrageously gifted and forward-looking that he has been disciplined or otherwise had to suffer for it. The academic conditioning and method of selection, plus the concomitant rewards, ensure compliance. The incipient composer is usually talked—or graded—out of his faults, or if he fails because of them he fails as an undergraduate. Such failure is nearly absolute. What is there in all our society to sustain the failed fledgling in the conviction of his faults! He is convicted by them and amends them, or he is finished.

I am not joking about these matters, any more than Agnes DeMille is joking in her quite terrifying article (*The Atlantic Monthly*, September 1958) *Artist or Wife*. One summary sentence on her topic applies no less devastatingly to mine: "The suicide rate among men, the alcoholism, the excesses of sedation and narcotics, the growing overt homosexuality, the juvenile neurosis and delinquency attest to the monumental cost of the emotional maladjustment." She ends: "It is an act of recognition that is needed, an act of love." The leaders of American musical thought, who are mainly academicians, are not hostile to a genuinely free and creative American music; conditioned by their training they are only emotionally frigid. This emotional infertility is deadlier than overt hate. Genius can rise on the very impetus of the hate that blows against it; against apathy it beats helpless wings.

To begin with the six quartets. Without exception they are eclectic and neoclassical. Interesting to note that the two which deploy a tone-row (Finney's Sixth and Imbrie's Third) were composed in 1950 and 1957 respectively, after the appearance on records of Schoen-

berg's four quartets, indicating that the presence of music on records is more influential than the availability of a score. Imbrie's Third shows a more thorough awareness of Schoenberg than is to be found in the tone-rows of his master Roger Sessions. The distinction appears in the open texture, the withdrawal of notes, a structure not made heavy by eloquence. From Bloch through Sessions one recognizes the desire to heap up effect by notes; in Imbrie the desire has been modified, with lyric gain. Yet effort is still evident in the sophisticated wish to please by a recognizable working, to an acceptable outcome. If this is a weakness, the high comprehension of the style is revealed by the avoidance of every twelve-tone cliché. Imbrie's art goes farther than Finney's and is more drastic; every measure is a concentrate, both in the Second Quartet, the opening of which can stand with Haydn, and the Third, which drives forwards in unrelenting zeal—it does not rise—to the little figure of embellishment that rewards an attentive listener at the ultimate moment.

Except Finney, Porter, and Smith, these composers prefer a quartet in three movements, concerto-grosso style, the finale lighter than the opening. To quote Sessions from the notes for Imbrie's Second: "The final movement follows after a slight pause, and is in a somewhat lighter vein than the other two." Imbrie alters the emphasis in his Third by placing the slow movement at the end. Porter avoids the movement problem by summing up a succession of tempi as in effect a single movement. Finney's comment after hearing the first performance of Porter's Eighth Quartet will serve as pleasantly for his own art: "There are, of course, different tempos and different moods, but the formal design is found in the flow of one idea into the next and the lovely arch of the entire work, ending where it began. . . . He is primarily a writer of beautiful melodic lines, but they always suffuse into subtle iridescent harmonic colors." Porter is the more coherent and gifted, Finney the more divisive and conventional.

The Guarneri Second Quartet has won high praise from critics, praise undoubtedly deserved in comparison with the sort of thing

(Continued on Page 32)



OMNIBUS

RAYMOR'S OMNIBUS

Collection from Denmark . . . classic of contemporary modular furniture systems . . . now offered in wall-mounted or free-standing form, in oil-finished teak or American walnut. Full-scale cases and shelves of basic multi-purpose versatility are supplemented with specialized units . . . bar, desk-vanity, dining table, mirrors, bulletin board . . . and a new unit which takes OMNIBUS around corners. Beautifully styled and crafted, yet moderately priced, OMNIBUS offers the ultimate in flexibility . . . affords limitless possibilities of combination . . . anticipates the furnishing specifications of every residential or professional setting.

Write Dept. A for illustrated brochure on this new Raymor furniture system.

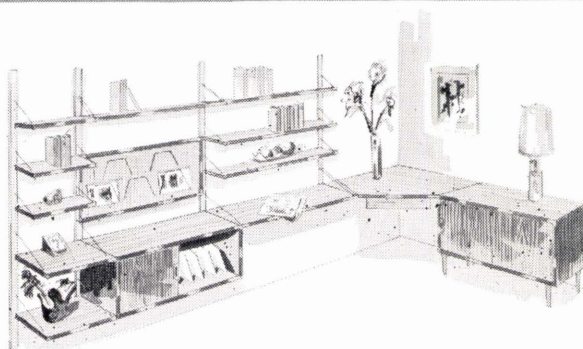
Visit our newly expanded showroom in
Chicago — Merchandise Mart 1215-1216
offering complete architect and decorator service.

raymor

RICHARDS MORGENTHAU & CO.,
225 FIFTH AVENUE, NEW YORK 10, N. Y.

Showrooms: 225 FIFTH AVENUE, NEW YORK 10
1215-1216 MERCHANDISE MART, CHICAGO

Available at Carroll Sagar & Associates,
8833 Beverly Boulevard, Los Angeles, Calif.





THE REDWOOD SCHOOL offers much more than a



friendly, home-like environment

for education. It offers true



construction

economy,



exceptional resistance to fire,

complete

adaptability to future expansion



Architect: John Carl Warnecke, AIA

Photo: Rondal Partridge

CALIFORNIA REDWOOD ASSOCIATION
576 Sacramento Street • San Francisco 11, California

In building their pavilions for the Brussels Universal Exhibition the nations were allowed complete freedom of expression. It might have been expected, then, that this world meeting place would provide a wide diversity of architectural styles.

What the visitor to Brussels sees, on the contrary, is a remarkable coherence in architecture and, from certain points of view, an extraordinary degree of unity in solving technical problems. Despite their differences in form, most of the pavilions prove that artists all over the world are dominated by the same imperious needs and are imbued with the same aspirations.

The reasons for this unity are not artistic but technological. More than ever before, technology rules the world and new materials offer everywhere the same possibilities. Moreover, the fact that certain trends are asserting themselves in all parts of the world indicates much more than a passing fashion: it represents a new view of architecture.

Throughout the history of architecture, a new material has always started by imitating older ones. In India, for example, when stone began to take the place of wood, architects scrupulously copied wooden temples, carving the stone into false beams in the ceiling and even imitating timbered flooring. Egyptian columns copy the trunks of palm trees and bundles of reeds. Cretan and Greek temples are but a transposition of wooden edifices.

All this may seem ancient history, but in fact the story is being repeated again today: reinforced concrete, heralded as offering so many new possibilities, has been used merely to imitate the centuries-old architecture of stone and wood.

Half a century ago, a house was constructed with vertical stone walls: between these walls wooden beams were placed to form floors and ceilings. With the introduction of steel beams, wider spans were obtained; reinforced concrete enabled wider apertures to be made in the walls, so that entrances and window bays were enlarged. But buildings generally remained the same: vertical walls of reinforced concrete, instead of stone, forming the skeleton and the "skin" of the house; ceilings of metal beams, replacing beams of wood.

And suddenly, in Brussels, reinforced concrete breaks away from this imitation of the past and in doing so reveals to us the extent to which new materials were being made the slave of old conceptions.

The first lesson of Brussels is that the two

functions of "skeleton" and "skin," of structure and covering, can and should be quite distinct from each other. In building with stone, the necessity of embodying the strength of the edifice in the walls which surround it implies severe restrictions in style since they must then be given the fullest development with consequent limitation on openings for light.

But today the "bones" are completely dissociated from the "skin" of the building. The skeleton must be strong and economical: for the covering, materials are sought which will be transparent and light.

This skeleton may be situated in the center of the building. For instance, in the Austrian pavilion, four tapering concrete pillars, on solid bases, traverse the full height of the building, carrying the staircases. From this structure the different floor levels stretch out like gigantic balconies. On these overhanging balconies, there is no limitation to the construction of partitions, no need for solid supporting walls, which may be of glass.

Or the skeleton may be eliminated altogether. As an example of this, the United Nations pavilion consists simply of an enormous coupola of reinforced concrete, the largest ever constructed in Europe. This coupola rests lightly on the ground and has no central support whatever, a building without walls or roof. . . .

Then again the outer walls may be "liberated" in another fashion: they may be quite simply suspended. Among several buildings employing this technique, the most striking is that of the European Coal and Steel Community. A series of frames made of concrete or wood are driven into the earth: the entire building is suspended from them by cables attached to the roof, which may be of very light material, and to the walls which at the base are merely buried in the surface of the ground. This solution is probably the most rational one, for sheds, workshops, factories and in fact for any building which does not need upper floors.

Finally, there are the three pavilions which, by their size, dominate the Exhibition: the French, Soviet and United States pavilions. At first sight, they appear very different. But in reality they are the result of the same technical revolution which has matured in all parts of the world.

As regards France, an entirely revolutionary architecture reveals distinctly the conception of an internal structure. From a central block, three giant steel arrows rise towards the sky, each one counterbalancing the other two. Two of them form the diagonal axis of the vast building while the third, dominating the front, serves merely to

(Continued on Page 34)

The completion of Case Study House No. 20, and its subsequent opening to the public, has made available to the observer the opportunity for visual examination and evaluation of the project. Although drawings, models and photographs partially convey the quality and nature of architecture, its reality lies in the direct experience of the observer and his emotional and intellectual reaction to space and its defining forms.

The ultimate success of any building can be determined only with time and the act of living within it. However, we believe that a basic understanding may be achieved provided the observer is cognizant of the initial premises upon which the design was predicated.

As discussed in previous issues, several factors were dominant in forming the primary concepts of the project. Initially, a recognition of the unique qualities and limitations of the site led to the development of a structural frame enclosing and defining the site in its entirety.

Secondly, consideration of the client's specific needs and budget led to the placement of particular emphasis on the structural and spatial aspects of architecture in opposition to the use of excessively refined and costly techniques, equipment and materials. Finally, the necessity for the development of a plan organizing the space into major areas devoted to specific needs, functions, and age groups dictated the separation by means of courts and open spaces of such elements as parents' private living areas, children's rooms, social and dining facilities, studio, work zones, etc. Zoning of this nature, together with direct and orderly circulation, can help to create an harmonious and satisfying environment, conducive to the well-being and happiness of all members of the family.

The construction of Case Study House No. 20 was unique in that it was based upon the experimental use of several prefabricated Douglas Fir plywood products as part of the structural concept. This system consists of a series of continuous plywood box beams, stressed-skin plywood panels, and hollow-core plywood vaults, all fabricated by the Berkeley Plywood Company. The component parts, fabricated in northern California, were trucked to the site and handled by forklift hoist, making possible rapid erection techniques. The plywood vaults, covering the central area of the house, were positioned and initially secured in less than one and one-half hours. These vaults and the stressed-skin panels spanning the eight-foot bays in the flat roofed area of the house are composed of two layers of Douglas Fir plywood, the top being $\frac{1}{4}$ inch thick and the bottom $\frac{3}{8}$ inch. These are spaced with $1\frac{1}{8}$ " x $1\frac{3}{8}$ " ribs, the central void area being filled with Fiberglas insulation. The panels were bent and pressure-glued into the required forms, thus achieving a light-weight modular "sandwich."

The primary exterior surfacing material used as a structural skin over the light wood framing members was $\frac{3}{8}$ " Douglas Fir plywood with a medium density overlaid face. This material imparts extreme rigidity, resists horizontal loads, and provides an excellent surface for subsequent painting. The basic panel size of 4 x 8 feet is

case study house 20

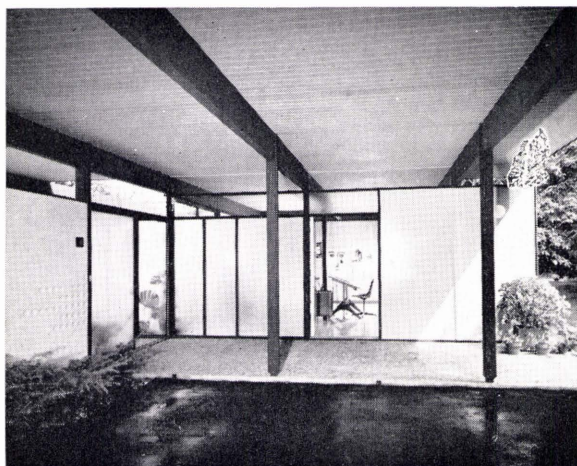
BY BUFF, STRAUB AND HENSMAN, ARCHITECTS. IN ASSOCIATION WITH SAUL BA

ECKBO, DEAN AND WILLIAMS, LANDSCAPE ARCHITECTS

FURNITURE: CARROLL SAGAR AND ASSOCIATES

THIS IS THE MOST RECENT HOUSE IN ARTS AND ARCHITECTURE'S CONTINUING CASE STUDY HOUSE PROGRAM CONCERNED WITH THE DEVELOPMENT AND USE OF THE LATEST METHODS, TECHNIQUES AND PRODUCTS IN THE MODERN DWELLING.



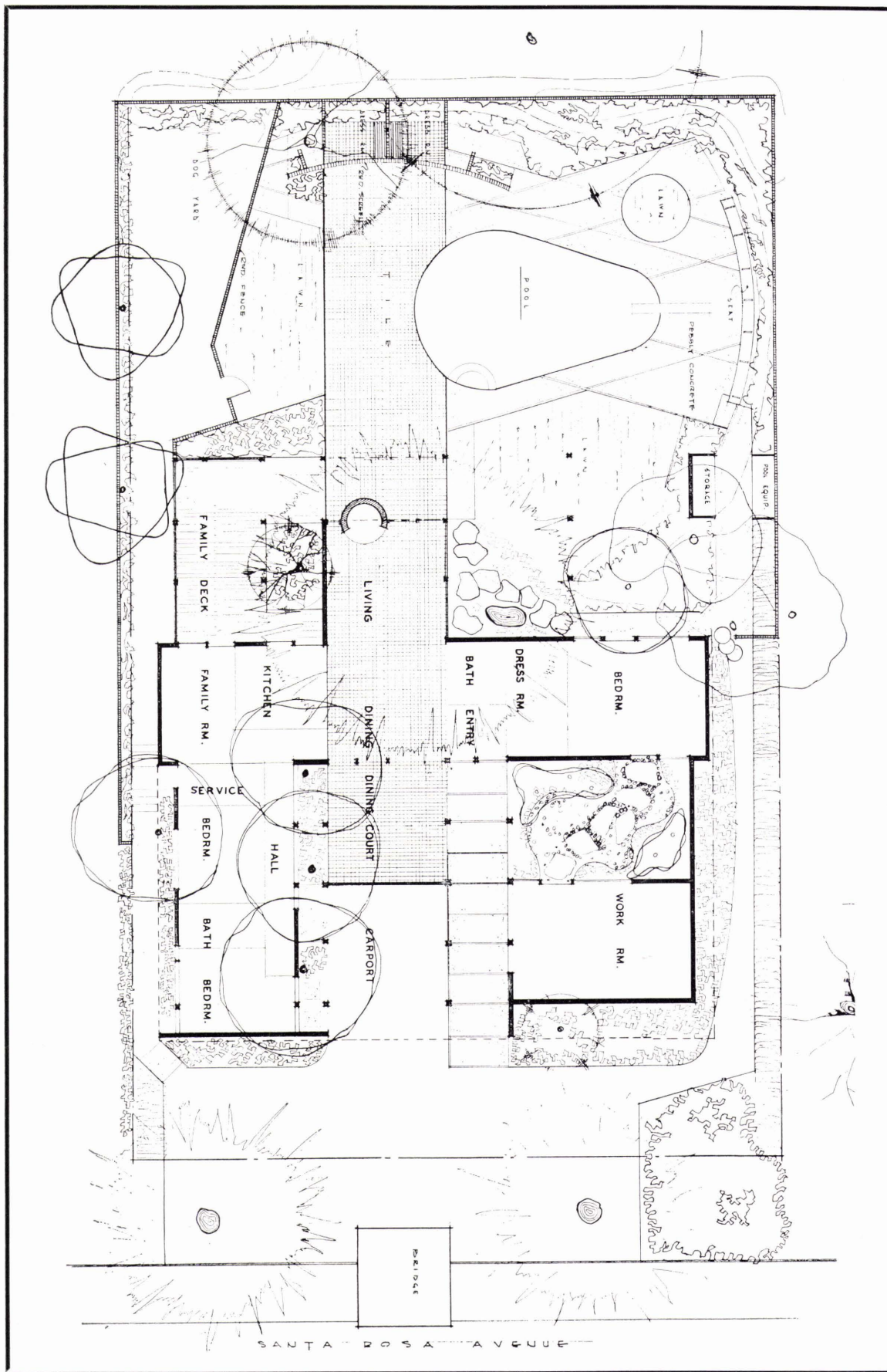


PRIVATE ENTRANCE TO STUDIO FROM APPROACH WALK



DETAIL OF "BASS RELIEF" SCREEN BY POMONA TILE COMPANY





THE HOUSE, LOCATED AT 2275 NORTH SANTA ROSA AVENUE, ALTADENA, HAS BEEN ON PUBLIC DISPLAY ON SATURDAYS AND SUNDAYS, FROM 1 TO 5 P.M. FROM OCTOBER 4 THROUGH NOVEMBER 9, 1958.

RIGHT: CENTRAL DINING-ENTRY COURT WITH PRIVATE BEDROOM-STUDIO. GARDEN BEYOND TRANSLUCENT GLASS SCREEN

TOP RIGHT: DETAIL ILLUSTRATING PLYWOOD VAULT AND BOX BEAM RELATIONSHIP

TOP LEFT: VAULT AND FLAT ROOF INTERSECTION CREATES ELLIPTICAL HIGH LEVEL LIGHT SOURCE IN CENTRAL ZONE OF HOUSE

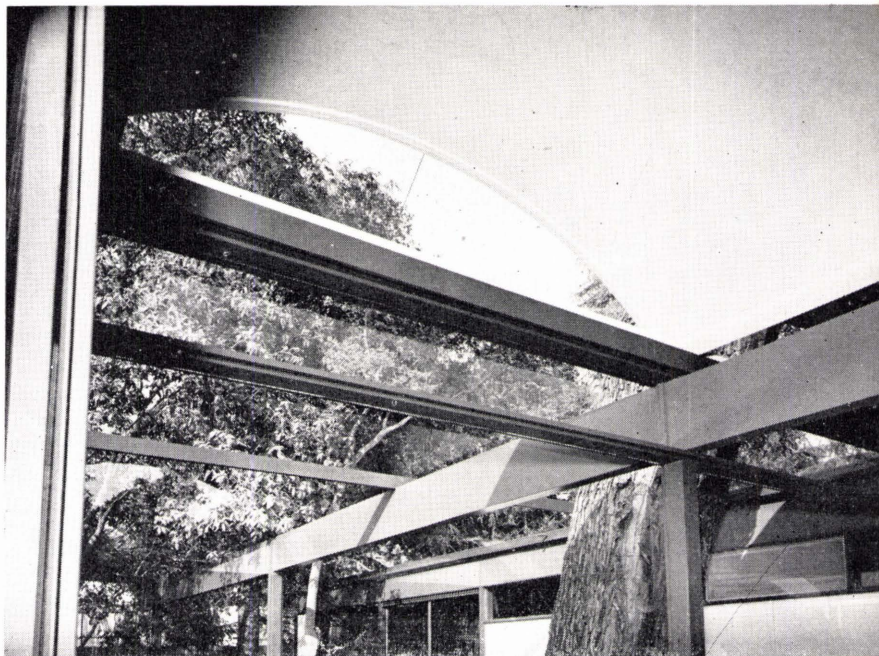
directly integrated with the 8' structural module vertically and horizontally thereby eliminating the necessity of job cutting each panel.

The joints between panels were treated directly with a slender applied batt which covers structural nailing, provides a weatherproof closure and echoes the modular rhythm of the building. As a contrast to the smooth, highly organized paneling, the balance of the exterior walls were clad with $\frac{5}{8}$ " surface-grooved Texture 1-11 Douglas Fir plywood.

Interior walls were covered in general with a $\frac{1}{2}$ " paper surface gypsum board, metal edged

and cement taped at the joints to receive a final paint surface. Remaining walls are surfaced either in vertical grain Douglas Fir plywood or with $\frac{3}{4}$ " detailed siding of California Redwood.

The floor planes throughout the house and garden are unified through the use of a spline of quarry tile that links the entry court, living-dining area, and the major garden terrace adjacent to the swimming pool. The tile is a six-inch square unit in Falcon Gray manufactured by Summitville Tiles, Inc. Floors in the bedroom areas are carpeted with Firth Wool Rustic Corduroy by Firth Carpet Company. The remaining areas,





1



2

1. STUDIO AND ADJACENT PRIVATE GARDEN. WHITE VINYL "ECONOLAST" FLOORS

2. CENTRAL DINING COURT. MAIN ENTRY DOOR TO RIGHT

3. VIEW FROM FIREPLACE OF LIVING ROOM CONVERSATION AREA

4. LIVING ROOM LOOKING TOWARD DINING COURT

5. LIVING-DINING AREA SHOWING HANGING FABRIC SCREEN BY WEBB TEXTILES, INC. THAT DIFFERENTIATES THESE ADJACENT FUNCTIONS. THE BEIGE SUMMITVILLE QUARRY TILE FLOOR IS CONTINUOUS FROM THE DINING COURT THROUGH THE LIVING ZONE TO THE MAIN POOL TERRACE BEYOND



4



kitchen, family, service, studio, and circulation areas are surfaced with $\frac{1}{8}$ " white "Econolast" vinyl tile produced by Vinyl Plastics, Inc. Garden terraces and entry walks other than tile are concrete topped with smooth round beach pebbles.

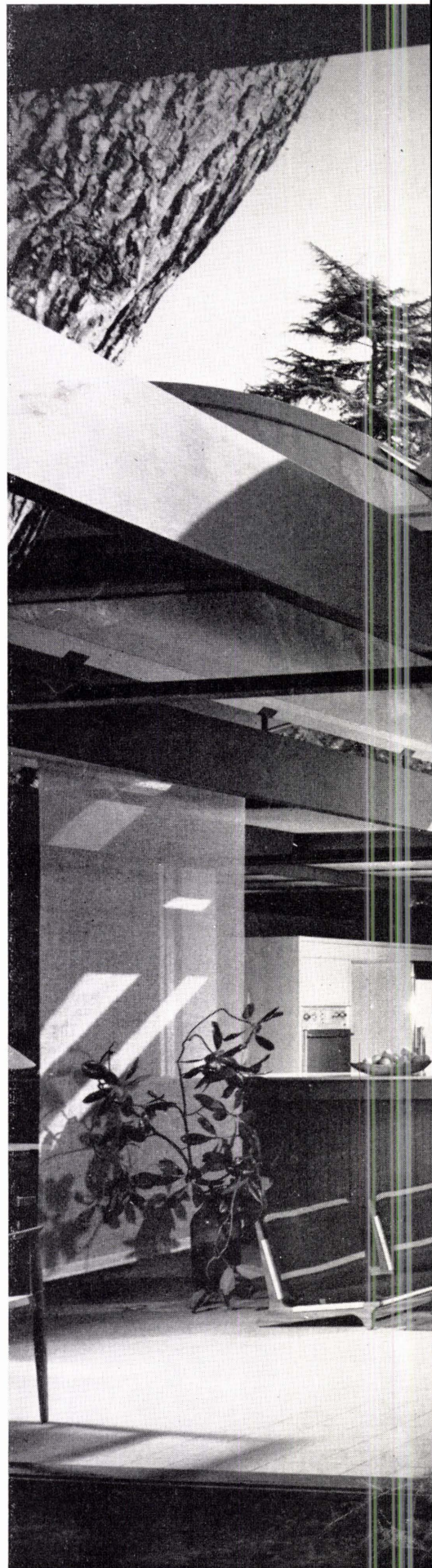
All major rooms open directly into garden courts and decks by means of full height 8' x 8' sliding Arcadia steel doors. Ventilating units of adjustable glass and stainless steel louvers provide natural ventilation throughout. Glass areas facing the public approach are obscure Factrolite, manufactured by the Mississippi Glass Company. Aluminum-framed plastic, heat-reflecting Wascolite skylights are employed in the interior bath and service areas.

Lighting throughout the house is accomplished largely through the use of Filon Fiberglass soffits which create diffused, continuous planes of soft light. Cove lighting at the base of the vaults serves to emphasize their form as well as provide general illumination in the living-dining area.

3



5



TOP: VIEW THROUGH ENTRY AREA TO MASTER SUITE BEYOND

BOTTOM: CHILD'S BEDROOM SHOWING BUILT-IN STORAGE FACILITIES AND WORK DESK



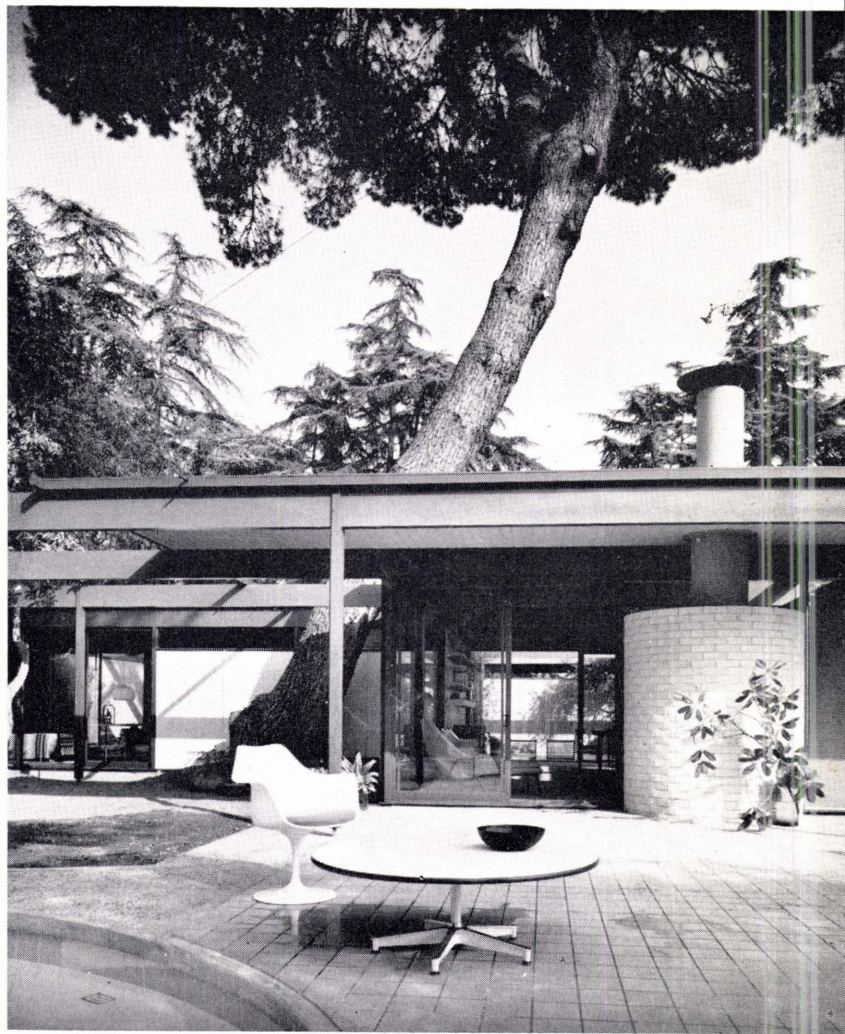
THE PRIMARY WALL OF THE LIVING ROOM IS REDWOOD SIDING. FOLDING HINGED PANELS RELATE THIS AREA TO THE COOKING CENTER BEYOND

In the studio the need for a considerable variation in light source and quality dictated the use of a continuous Troll-E-Duct lighting system manufactured by Bulldog Electric Products of Los Angeles. Lighting fixtures elsewhere in the project were supplied by the Holliday Lighting Company.

All major kitchen appliances are built in. The cooking top, oven-broiler, and refrigerator-freezer are by Frigidaire. The undercounter dishwasher and disposal units are manufactured by Waste King. A built-in NuTone food center adjacent to the sink provides attachments for blender, mixer, and knife sharpener. Overhead storage has been eliminated in the kitchen by the organization of a continuous bank of sliding door cabinets directly above and behind the sink and cooking top counter surfaces as well as through the use of large pantry storage units.

The house is heated and air conditioned electrically by a Vornado reverse cycle "heat pump" capable of providing refrigerated air in the summer and warm, filtered air in the winter. The Vornado unit was supplied by Sues, Young and Brown, Inc.

The built-in radio-intercommunication system is a Guardian MK II furnished by G & M Equipment Company. This unit provides for direct communication in all parts of the house as well as providing a radio listening and electronic fire warning system.



POOL TERRACE SURFACED WITH SUMMITVILLE QUARRY TILE UNITS



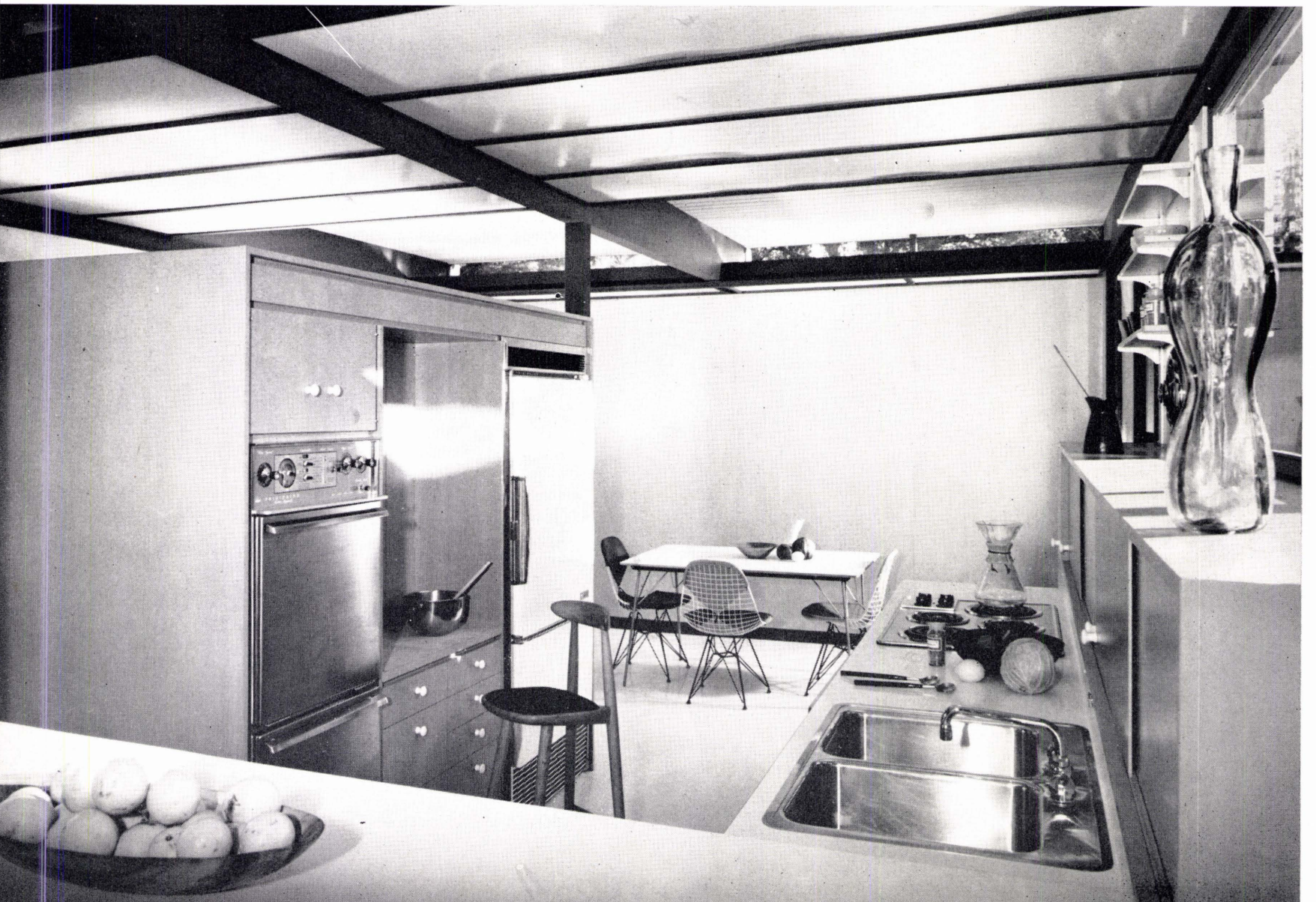
KITCHEN—FAMILY LIVING ZONE SHOWING RELATIONSHIP TO GARDEN DECK THROUGH ARCADIA SLIDING GLASS DOORS.



MASTER BATH—WALLS AND COUNTER TOP OF POMONA GLAZED TILE



CURVED REDWOOD GARDEN SCREEN TERMINATING QUARRY TILE TERRACE



KITCHEN WORK ZONE AND INFORMAL DINING AREA PASS THROUGH. CABINETRY AND WALL PANELING OF VERTICAL GRAIN DOUGLAS FIR PLYWOOD. FRIGIDAIRE BUILT-IN COOKING EQUIPMENT AND REFRIGERATOR. ILLUMINATION THROUGH TRANSLUCENT FILON FIBERGLAS SOFFITS

"Bass Relief," a 4" x 4" ceramic tile design by Saul Bass for the Pomona Tile Co., is employed as a screen wall in the entry court, establishing a rich pattern and a highly reflective, easily maintained surface. Glazed Pomona ceramic tile is used in the two bathrooms in all areas subject to water.

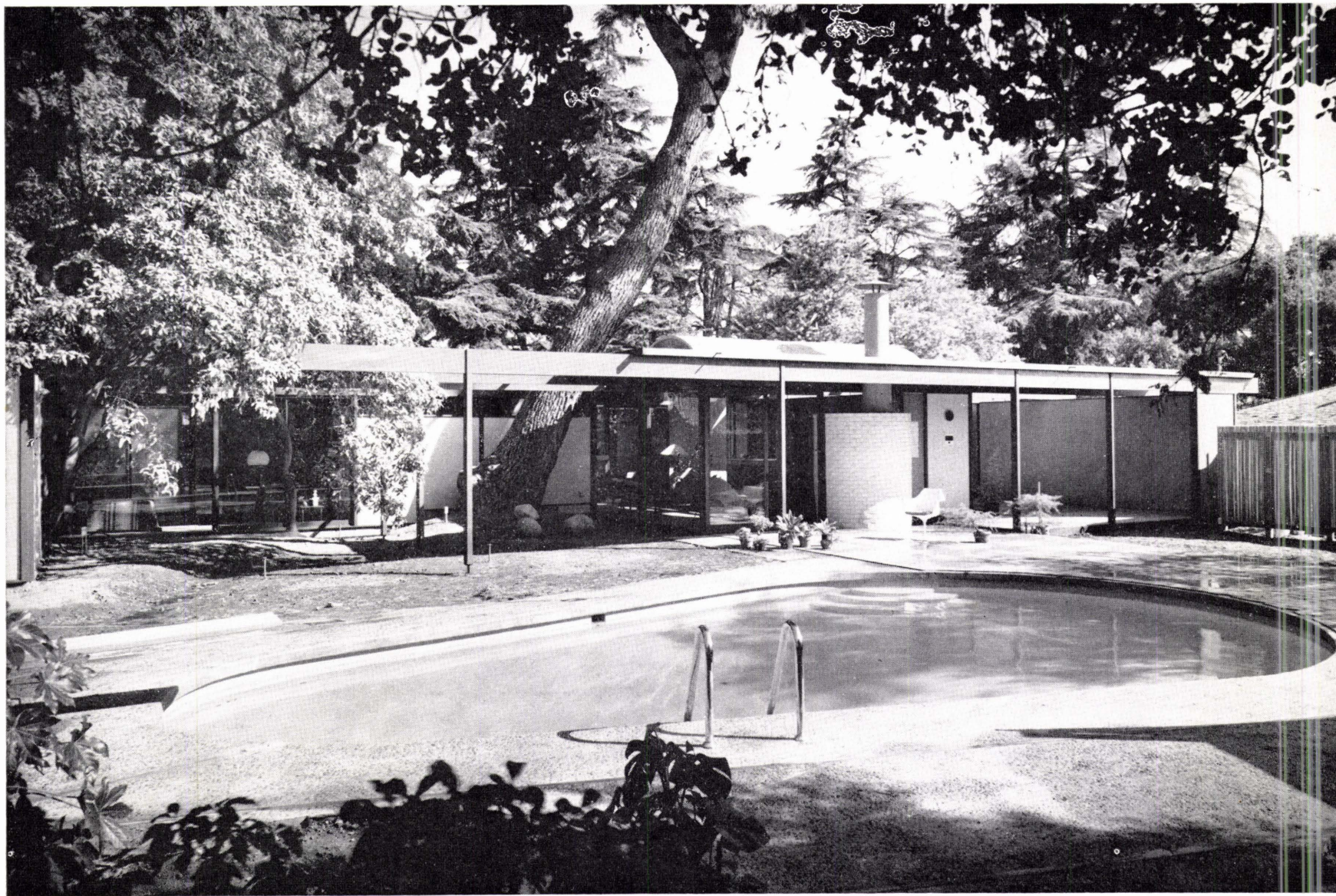
The landscape development was organized by Eckbo, Dean & Williams, Landscape Architects. It has been carefully studied to complement the architectural space organization as well as the existing trees and growth that are a part of the site. Although all plantings will not be finished at this time, the structural elements of the landscape plan have been completed. The unusual swimming pool by Anthony Pools provides the central focus for the rear living garden. Its form is a subtle echo of the curvilinear nature of other elements of the design.

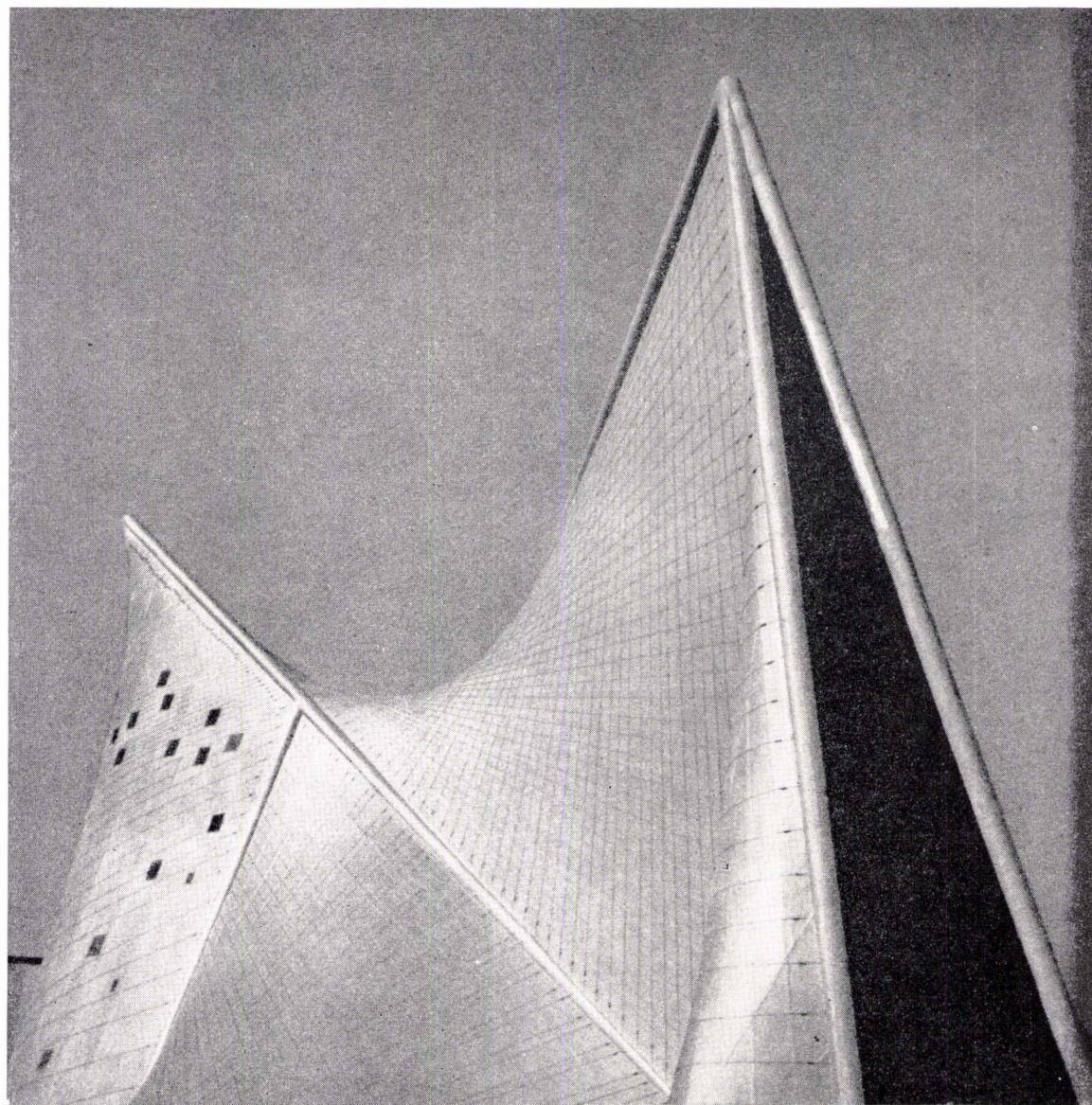
This has been a very rewarding project, and it has substantiated a conviction concerning the use of factory processed, prefabricated wood products. The success of the roof installation in particular gives encouragement of further exploration in the development of structural panel systems. Lamination, pressure gluing, and plastic impregnation give a new significance to this traditional material, indicating the direction of its rational use as a part of our contemporary vocabulary of structural techniques.



ABOVE: MASTER BEDROOM SHOWING CONTINUOUS BOX BEAMS AND 3/8" PLASTIC SURFACED DOUGLAS FIR EXTERIOR PLYWOOD PANELS

BELOW: GARDEN VIEW OF THE HOUSE. MASTER SUITE AT THE LEFT; KITCHEN AND FAMILY GARDEN DECK TO THE RIGHT. UNITED BY CENTRAL SOCIAL ZONE. POOL BY ANTHONY POOLS

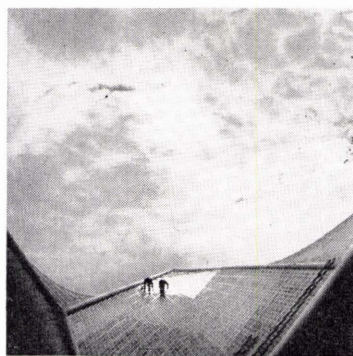




The "Electronic Poem" performed, in the Philips Pavilion, as also the building itself, is the creation of Le Corbusier, the celebrated French-Swiss architect. It is a synthesis of art and the latest scientific and technical achievements. This strange and extravagant light-and-sound show given inside the pavilion, lasts only eight minutes.

It is necessarily a somewhat sketchy account, but the over-all effect of this selection of pictures is to make it clear how, since its creation, humanity has struggled for harmony and happiness and defended itself against sorrow and catastrophe, how it has been torn between love and hate, between the elevated and unattainable ideal and the inevitable irritations of everyday life.

Le Corbusier's scenario comprises seven pictorial sequences, namely "The Formation of the earth", "Matter and Mind", "Out of the depths into the Dawn", "Man made unto himself Gods", "Men build their World", "Harmony" and "The Heritage of Posterity". The apotheosis of the "Electronic Poem" concerns the mission of humanity: the task of preserving what has been acquired and of handing it on to posterity is symbolized by the gesture of a hand that receives and bestows. In the mystical atmosphere of the pavilion gigantic pictures appear on the asymmetric-curved walls that converge above the head. There are birds, fishes, epileptics, masks, skeletons, idols, girls looking anxiously upward, buildings and steel structures that are askew, mushroom explosions and ruins, crippled children, but also film-stars, inventors, tools and many symbols or abstract compositions symbolizing whole epochs. These are intended to represent the dramatic story of mankind's development right up to the present day.



THE PHILIPS PAVILION AND THE ELECTRONIC POEM

BY LE CORBUSIER

AT THE BRUSSELS EXHIBITION

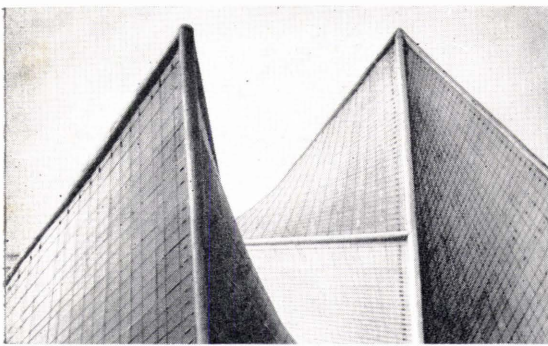
It is rarely that a great industrial concern can carry out a mainly idealistic plan to feature at an exhibition. The scheme of the 1958 Exhibition, which primarily aimed at drawing attention to the opportunities of the future, obviously gave a good opportunity to consider such a manifestation.

So thoughts turned in the direction, not only of the technical, but also of an artistic achievement, thereby making full use of the opportunity to find new means of expression with the aid of the technical products; means of expression which might also be of significance in the future. During the first talks it was thought that it should be possible to create the Philips Pavilion by a combination of assignments to an architect, an author, a composer, perhaps also to painters and even sculptors.

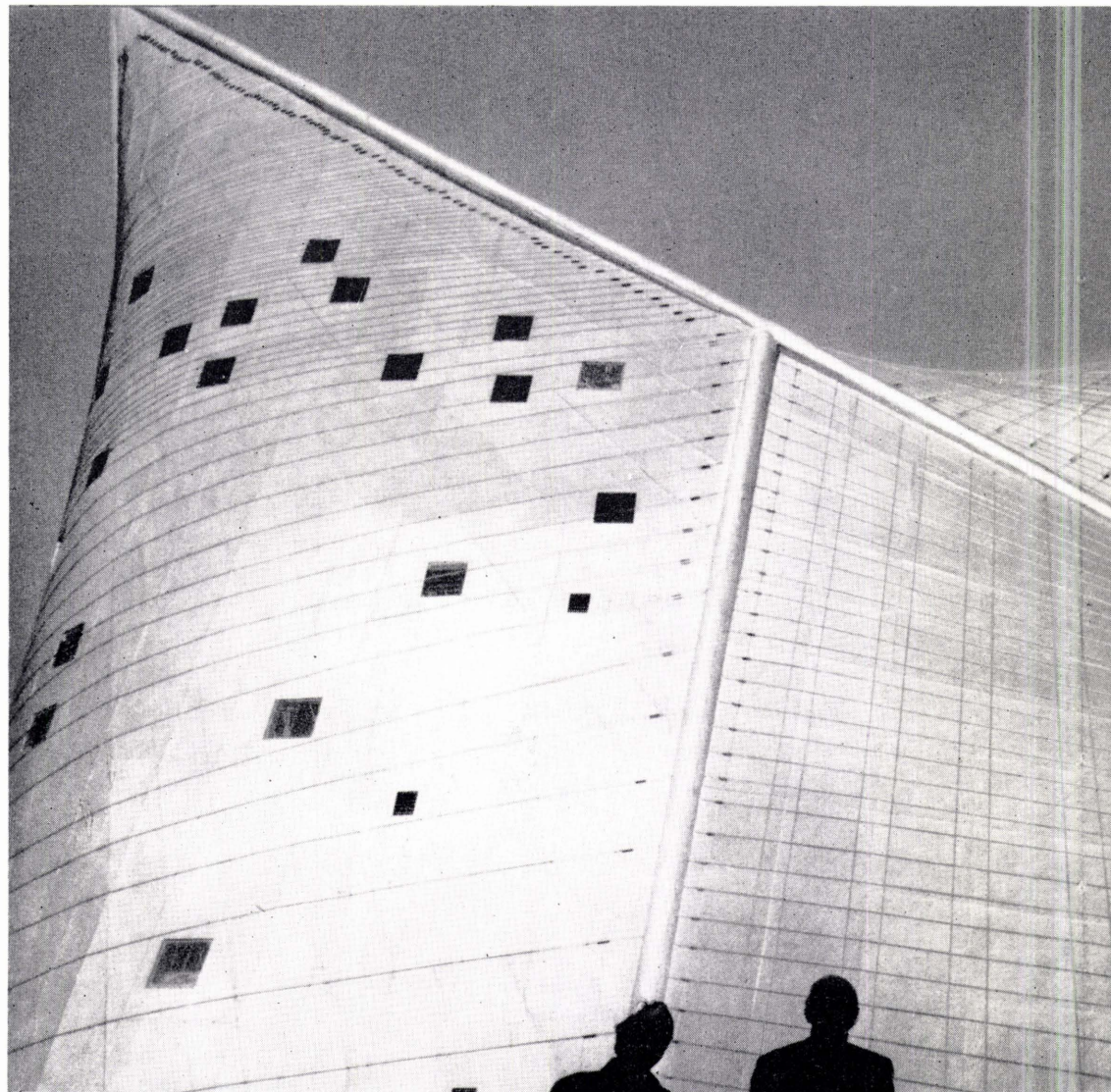
This team would be selected from artists of international reputation.

We began by discussing the project with Le Corbusier, who however, rejected our proposal to build for Philips the pavilion only. On the other hand, the opportunity of employing all the means of expression of colour and light, form and image together with sound in one great spectacle, fascinated him to such an extent that he proposed to design the pavilion as an empty shell inside which a performance would be staged for which he would provide the scenario and utilize all these technical installations in order to arrive at a new form of art. He right away mentioned his friend Edgar Varèse, an artist of his own age whom he should like to have as an associate for the section sound effects. For the rest his most important collaborators would be the Philips technicians, because they would have to demonstrate the possibilities to the script writer and the composer, so as to enable them to utilize to the full these opportunities. This meant a long-term collaboration, in which only gradually it would become clear how the whole project would develop. Trials had to be made, and in the Philips organisation there grew a small core of initiates devoting their energies to the various problems and tasks. Now that Le Corbusier's scenario has already been shown many times to the public, we have become convinced that our objectives have been largely attained. The originality of the form and construction of the Pavilion, the new means of expression employed with the aid of the Philips engineers by Le Corbusier and Varèse and also by Xenakis, have led to a remarkable and impressive manifestation of a new modern art.

L. C. KALFF



LE CORBUSIER



The curved planes used in the Pavilion introduce a new element in modern architecture, by their form which complete the plane and straight line, but also by their characteristics of resistance, which are the translation of their geometry.

"What is the geometrical form which the covering should have if we wish to keep to a minimum the quantity of material that goes into this covering?"

This is the question which has directly influenced the orientation of abstract and material research by technicians and mathematicians for more than a generation.

Reinforced concrete, which at the outset had copied the wood and stone skeleton, was the building material which by its very nature should lead the way in this new trend. Its essential property is continuity. Concrete may be shaped and moulded into any shape. It can be used for the construction of columns and beams and of massive slabs and blocks, but it can also be used to build shells as extended, as straight or as curved, as one should wish.

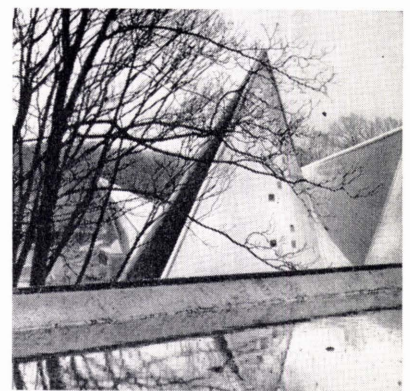
On the other hand at the dawn of contemporary architecture, its promoters found in the living or fossilized biological forms an echo of their own conceptions of plastic shapes. The industrialization of stamped metal forms and their application in such divergent domains as aviation and automobile engineering familiarized technicians and architects with the properties of resistance resulting from the geometry of these forms. Thus mathematics, plastics, industries and materials (concrete, metal) have created a favourable trend for the introduction of curved planes in concrete. For the architect, these forms also signify a transition from a translative conception of volume (elevation rising from the plane by vertical translation) to a new conception with three distinct dimensions.

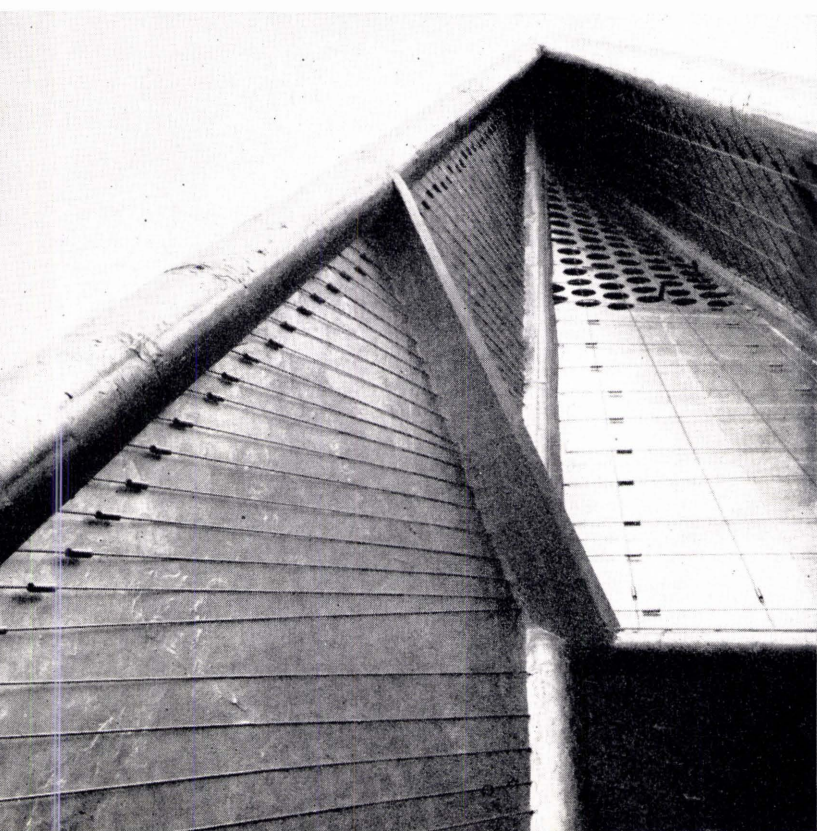
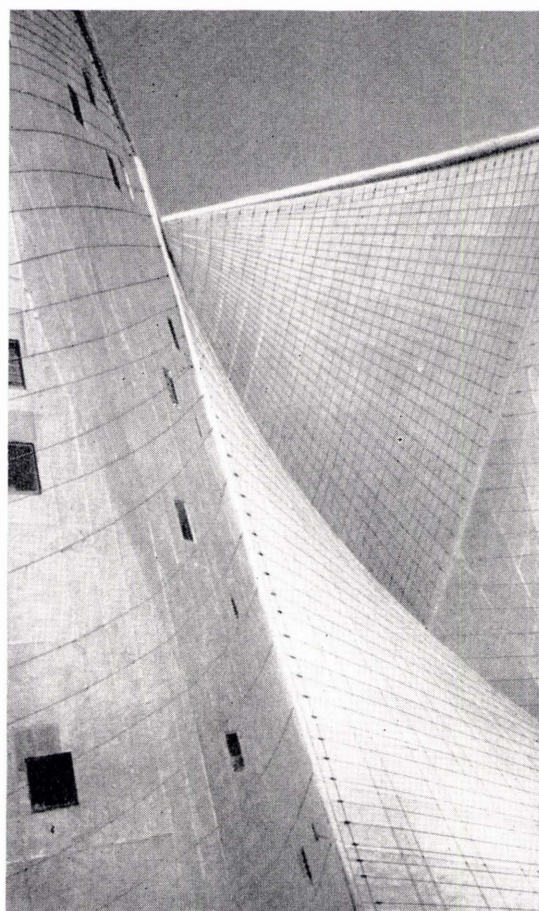
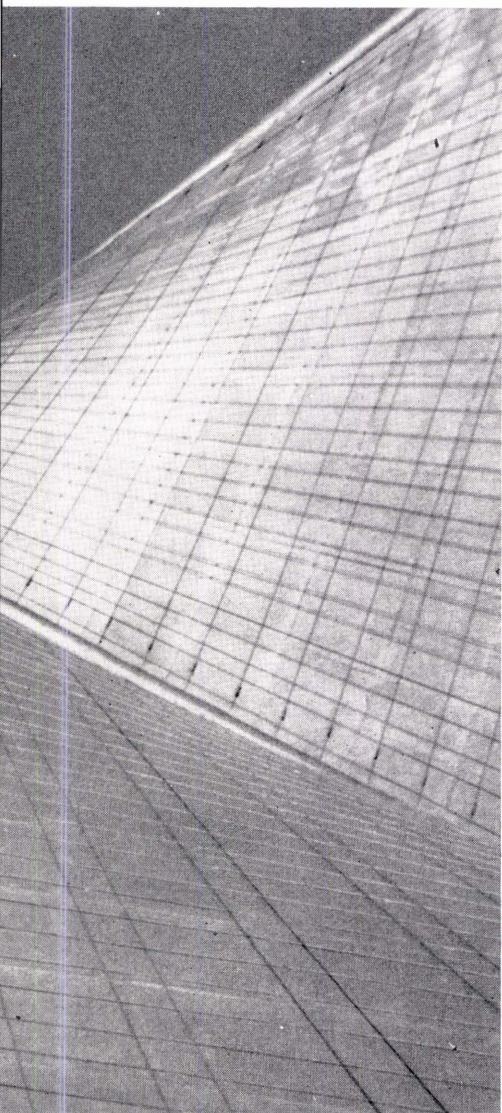
It is within this present-day framework of modern acquisitions of engineering and architecture, that the architecture of the Philips Pavilion is to be seen.

When on the request of Mr. Kalf, Le Corbusier accepted the idea of constructing the pavilion destined to house his electronic poem, he conceived a hollow structure of free design constructed in concrete projected on metal trellis-work and suspended from a frame-work comprising a sheltering roof.

The Pavilion not only introduced a bold advance in plastic design, but has also led to the discovery of an original and widely useful method of utilizing these difficult surfaces without the use of casing.

JEAN XENAKIS





A synthetic event has occurred. Everywhere new tools have opened the doors to the imagination: Electric light has lengthened the day, creating new hours of activity.. The gramophone has recorded sound (words and music). The phonograph has penetrated into the homes: Labrador Atlas, steppe, savannah, the great cities of the East and the West, farmhouses lost in the isolation of the countryside. The disc brought into the home the inspired voice or the musical instrument, learned or popular, the entire orchestra: individual form of the library: record library. The cinema ruled the world: the best as well as the worst. The radio taps at every minute of the day an infinite network of true or contradictory news, reaching everyone in his bed, in his bathroom, filling the houses with words, noise and ideas. The television invaded the homes,—blessing or bane of the household. (Up to that point everything had remained within the human scale, being the product of man or woman directly or indirectly.) Elsewhere, in the opera houses, in the music halls, in the theatres, in the concert halls, the opportunity remained of coming into "direct contact" with singers, actors, virtuosos. But the attendance dropped steadily; there were more and more empty seats.

The construction of a modern society promoted the gathering of crowds; the voice—emission, transmission was ineffective. Electronics intervened; the microphone, the loud-speaker. In airports, in railway stations, in the harbours, words are addressed to strangers over the noise of the crowd, orders are given, messages are communicated.

A medium of action has appeared: electronics, outside the human scale, drawing from physics extraordinary resources of power, volume, delicacy or violence, slowness or speed,—a physical and mechanical event that places in the hands of man almost unlimited forces, and amazing sources of psycho-physiological action through the medium of light. Colour, rhythm, sound, image, putting them in synthesis, recording them on a gelatine-coated tape and enabling their broadcasting at will at any place, obviating the hazards of human presence, projecting (like the cannons of a dreadnought during a naval battle) light, colour, rhythm, sound and image, henceforth available at every minute in the totality of symphonic recordings.

Offering to the modern world (in all latitudes, all longitudes, all climates) the electronic plays capable of stirring the emotions of men and women, capable of reaching the heart of the individual as well as 1000 or 10,000 or 100,000 spectators and listeners.

Calling on the creative faculties of: authors, actors, instructors, technicians, the new teams of the new games of a mechanized civilisation. The present electronic poem, born out of a conjuncture, has been composed by a disciplined team in the course of two years. It makes its appearance abruptly, by the finger pressing an electric button, at the precise moment when the equipment is put into action in the Philips Pavilion at the World Exhibition.

LE CORBUSIER

SOME CULTURAL PREREQUISITES OF SCIENCE AND ART BY HARVEY WHEELER

Although we are very sensitive to what we mark as individual differences between human beings, from all we can tell, these differences actually occur over an extremely narrow range of biological differentiation. The differences between human beings are not so much physiological as they are cultural. This "difference" is what we mean by "culture." Culture is the non-physical environment—the total non-natural environment—which permits us to make our most useful and definitive distinctions between human beings, for the raw human material appears to be much the same wherever and whenever it has existed.

A cultural environment, the "difference," the sum total of non-natural environmental factors which make it possible to distinguish between human beings, exists. That is, a cultural system has a definable empirical existence even though its elements are often very hard to recognize and to isolate. It is a common practice to separate cultural factors into the two categories of artifacts and mentifacts. Although as with all such distinctions, such categories are very useful. The related pair of terms, technique and symbol, are preferable so long as we bear in mind that *both* elements—symbol as well as technique—are empirical, existential factors. Symbol has a deceptively ethereal character which sometimes leads us astray. Technique also has a deceptively material or physical character and sometimes leads us astray in the other direction. Neither is material in the sense that the material environment is and neither is ethereal in the sense that pure spirit is sometimes spoken of. Both are objectively observable empirical elements of human culture. Taken together the technical and symbolic elements allow us to start the relation-

ships between human actions in a given culture. That is, they help us denote the distinctive forms and patterns of actions of the people of a culture. Technique and symbol are in a sense the "laws of nature" canalizing human actions much like men once thought of laws of physical nature canalizing events in the physical environment. Indeed, that old-fashioned view of the laws of physical nature was in large part the result of our imagining nature to be governed in the same fashion as a culture.

It is possible to speak of cultural development, the expansion and refinement of technological and symbolic equipment and the extension of a culture's ability to maintain itself and solve its problems without engaging in ethical evaluations. We have no difficulty in maintaining that Greek culture at the time of Plato was superior to Greek culture at the time of Homer even though there may be many who would claim that there had been an ethical deterioration in both people and institutions between those times. And although this romantic claim has been a very common cultural occurrence it is merely that cruelty, violence and terror seem more natural and environmentally inevitable under primitive conditions than does the seemingly man-made depravity of more highly articulated and sophisticated cultures. Unfortunately it appears true that no highly articulated civilization has developed except in an urban environment, and no civilization has survived urbanization. The human being is an animal that has not yet learned to live in cities. Presumably, however, this is a problem capable of solution. If this is so it is defensible to identify cultural "progress" and excellence with the extended and filiated elaboration and articulation of technological and sym-

bolic equipment. The technology of canoe building develops into more complicated ship building and the associated rituals and magical symbols which insure its accomplishment and preservation as an art develop into engineering and science.

As cultures become more complex less and less of their technology can be assimilated and preserved through direct technological apprenticeship; more and more of the cultural know-how must be learned in schools—institutions specifically devoted to the preservation, transmission and in some cases the improvement and articulation of the cultural symbolic equipment. That is, in complex cultures there occurs a very marked transformation of technique into symbol. Implicit in this transformation is something of a revolution—a revolution, however, that has seldom if ever been consummated. The more primitive the culture, the closer the relation between technique and symbol. Not only are the two virtually inseparable, the culture is relatively more dependent upon its technological than upon its symbolic equipment, even though this may not be readily apparent to its members, for so much of the consciousness about cultural equipment is in the symbolic development of very high sophistication. That is, from the standpoint of the anthropologist, in a primitive culture the technological equipment is the independent variable and symbolic equipment is the dependent variable. However, the chief mark of a high civilization is the reversal of this relationship; the development of symbolic equipment becomes a function of high cultural articulation whereby the culture (whether or not this may be apparent to its members) becomes dependent upon the conversion of technological into symbolic equipment and moreover, dependent upon the c

ation of the symbolic revolution whereby its symbolic equipment is converted into the independent variable and the technological equipment isordinated to it as a dependent variable. One of the chief reasons this has become difficult for historic cultures to achieve is that it involves a fundamental social revolution in which cultural control passes out of the hands of the technological hierarchy and into the hands of the hierarchy of symbol workers. The fact that this has never occurred completely and that it appears extremely unlikely says nothing about its "functional" necessity. Even so, we denote high cultures by the degree to which it has occurred and we celebrate most reverently those parts of historic cultures in which it has most nearly occurred: Greek philosophy, Roman law, English science, American constitutionalism, German music, French art, Russian literature, and the like. Moreover, it is only these parts of historic cultures which have persisted and survived for not only is it true that a culture transmits itself through its symbols, it is also true that the only thing it can transmit is its symbols. However, just because a piece of cultural knowledge is symbolized does not mean that it is in any way significant, or that it will survive. 5th century B.C. Greece and 19th century Germany produced extremely high cultural levels in some areas, but most of what they produced passed away as if it never existed and is recoverable today only through the curiosity and industry of antiquarians. It does survival as such mean anything more than the continuity of the culture itself from generation to generation. Folk culture, for example, usually does not produce anything approaching a permanent cultural deposit capable of surviving

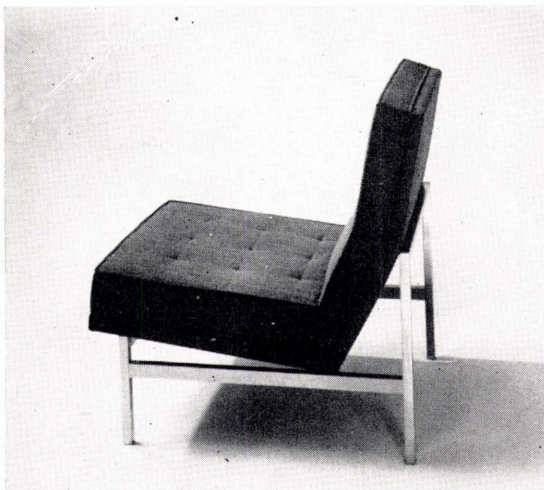
the demise of the folk which produced it, for obviously it is possible for a vast amount of cultural action to take place and transmit itself "permanently" without ever producing high expression which on their own are "permanent" cultural contributions such as those of Plato and Beethoven. For example, Elvis Presley may arise and flourish for several years and wither away. His genre, however, does not wither away, for his individual role is succeeded to by others such as Pat Boone. He, in his turn, is succeeded by others. The genre continues so long as the culture continues without ever producing anything but cultural hash. Any disintegration of the culture would find also the eradication of this folk hash. It would disappear without ever leaving a trace except to curious antiquarians and anthropologists. The genre of Elvis Presley, his technology, cannot and does not look forward to producing its own symbolic transformation on the level of a Beethoven. It is an element that subsists but never flourishes and never achieves elite or sophisticated stature. It is the nature of a mass culture to tend toward the conversion of all cultural expression into the peculiar folk hash of bureaucratic man.

There is one other condition in which a quite large and complex culture may tend to produce technological mediocrity rather than symbolic excellence. This occurs when for one reason or another high symbolic development is not technologically necessary. A colonial, or derivative culture, for example, may live at a very high level of technological development and complexity and yet never develop within itself the need or the means of providing indigenous cultural resources for high symbolic achievement. It may always be

able to "borrow" or "import" its symbolic needs from the parent culture, often not realizing the extent to which it is dependent upon the parent culture for the maintenance of its technological equipment. It unconsciously "exploits" the symbolic resources of the parent culture in order to exploit the natural resources of its own environment. That is, it may never develop of its own the characteristics of a highly sophisticated and fully articulated culture, despite the presence of widespread technological complexity. It may never learn to provide for its own symbol-creation needs and thus it may never produce the conditions conducive for the flourishing of a widespread group of "symbol-workers" (an *intelligenza*) required for the maintenance of a high indigenous culture. For there is a special cultural environment required for the flourishing of an *intelligenza*. There must be widespread and high caliber education, sufficient release from subsistence and technology-centered actions, conducive familial value systems, high prestige awards and sufficient economic rewards to insure adequate recruitment, maintenance and reproduction. That is, the culture must provide at its apex what may be called a conducive "symbolic syndrome" providing elite culture paragon status to its symbol workers in such way that those of highest abstract and theoretical achievement are able to circulate to the top of the *intelligenza* and of the society as well. *From a paper delivered at the International Design Conference, Aspen, Colorado, by Harvey Wheeler, professor of Political Science, Washington and Lee University.*



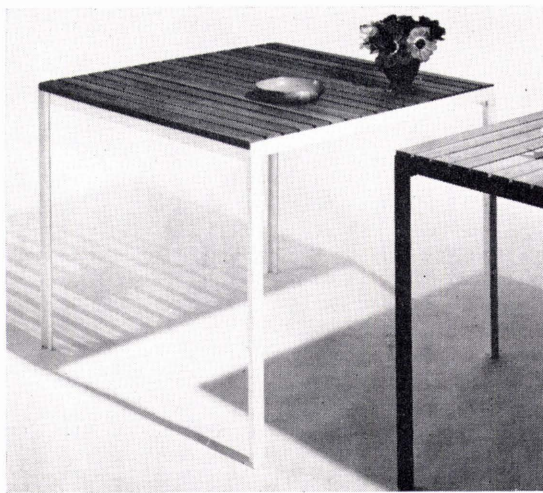
1



2



3



4

1. Molded plastic chair from the line of "pedestal furniture" by Eero Saarinen
2. A lounge chair with solid steel legs, tubular steel apron, brushed chrome finish. The frame is hardwood, and the seat upholstery is foam rubber over flat flexible steel and helical springs; the back, foam rubber over jute webbing
3. A single pedestal swivel stool from the new Saarinen series; the base is cast aluminum with stainless steel ring glides, fused plastic finish; the seat is 2" foam rubber over plywood
4. Outdoor table by Florence Knoll, the base has T-angle steel with black or white outdoor finish; the top is solid redwood slats with outdoor finish
5. Convertible sofa-bed; the frame of solid steel and rectangular steel tubing has either black oxide or brushed chrome finish. The seat pulls out on counterbalanced rollers to a horizontal position, clearing back for a full 30" width. in the foreground a chair by Harry Bertoia and a table from the new series by Eero Saarinen
6. Lounge chair by Florence Knoll. The frame has cold rolled steel legs, brushed chrome finish and a tubular steel apron; back and seat cushions are upholstered in rectangular welted pattern

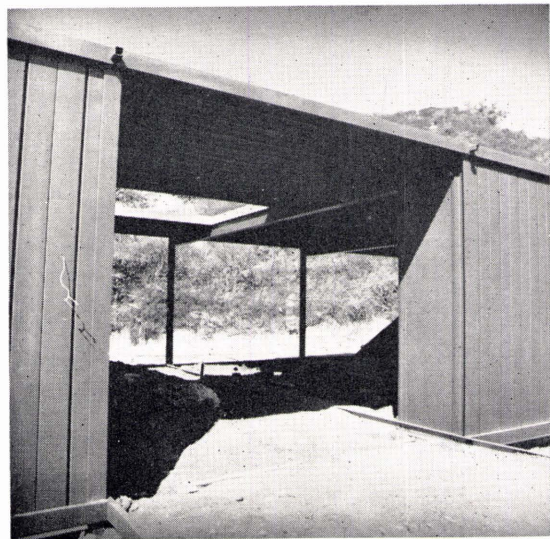
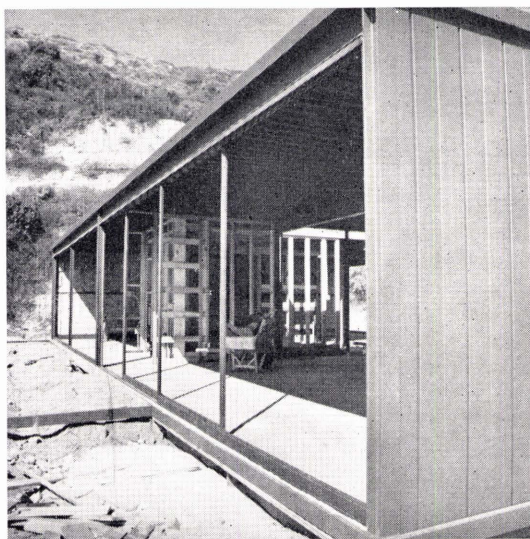


5



6

NEW FURNITURE FROM KNOLL ASSOCIATES



CASE STUDY HOUSE 21 BY PIERRE KOENIG, ARCHITECT

WILLIAM PORUSH, CONSULTING ENGINEER

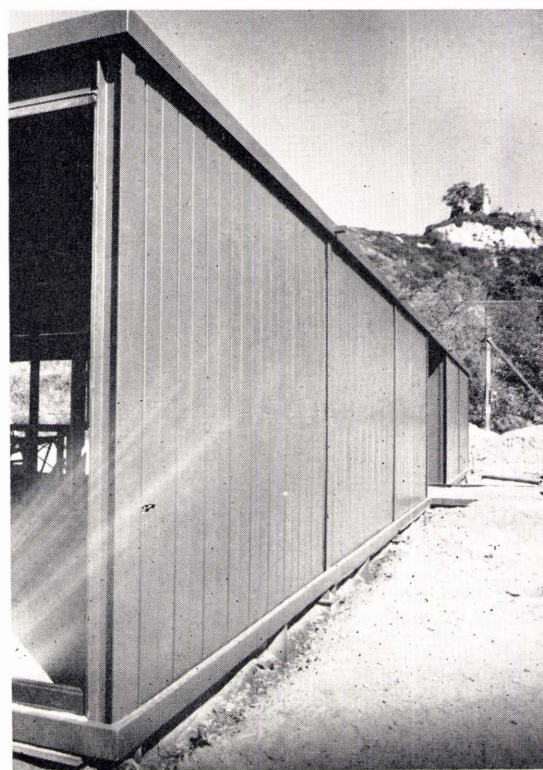
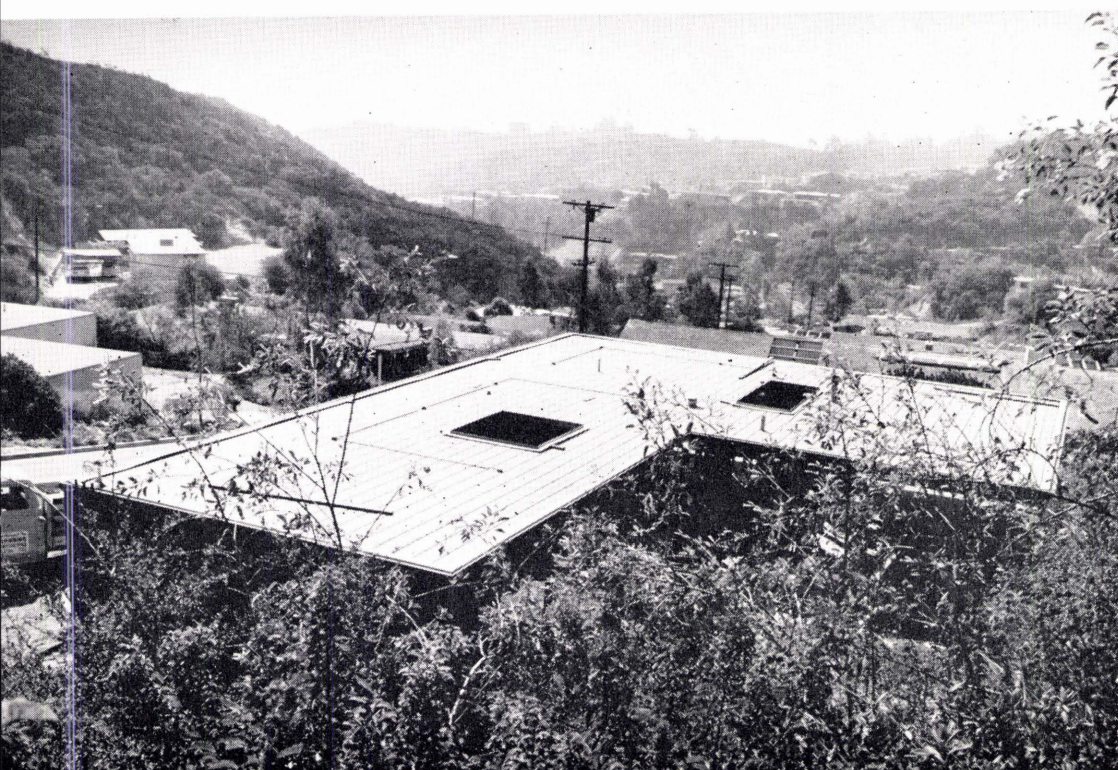
PAT HAMILTON, CONTRACTOR

This steel frame house, the newest in the continuing series of the magazine's Case Study House program, is rapidly progressing towards completion, and for the first time in our experience will be ready before the anticipated date. Our next showing will present the house completely finished and landscaped, and ready for the public showings.

At this date the light steel frame appears with the decking installed, and the house is shown with the steel primer applied. This 25-year coating is black. Used here as the primer, it will also serve as the trim coat. The parts to remain black are masked, and the basic white coat of vinyl will be sprayed overall. With the necessary masking removed, a smooth, sprayed-on trim coat will be the result with no other painting required.

The long spans and wide beam spacings are shown with the steel roof deck and steel wall deck in place. The scuppers on the front elevation will empty into the reflection pool. A central unit containing bath and facilities is here shown framed and will be the only wood framing in the house. The curtain walls have glass fiber insulation installed and are ready to receive the finish gypsum board. There is an interesting application of a new synthetic rubber sealing compound. The

(Continued on Page 34)



PHOTOGRAPHS BY JULIUS SHULMAN

PRODUCTS FOR CASE STUDY HOUSE NUMBER 20

THE FOLLOWING PRODUCTS WERE MERIT SPECIFIED BY BUFF, STRAUB AND HENSMAN, ARCHITECTS

STRUCTURAL

Framing Lumber—Douglas Fir Plywood box beams, vaults and roof panels. Fabrication by Berkeley Plywood Company, 1401 Middle Harbor Road, Oakland 20, California, in association with Douglas Fir Plywood Association, Tacoma Building, Tacoma 2, Washington

Cement—Portland Cement Association

Roofing—Pioneer-Flintkote Roofing Materials: 4 layers of Pioneer 15# Asphalt Felt, 60# Flood Coat Surface with 1½" Crushed Gray Slag. Pioneer-Flintkote, 5500 South Alameda Street, Los Angeles 54, California

Insulation—Fiberglas built into roofing panels supplied by Berkeley Plywood Company in association with Douglas Fir Plywood Association

Plastic Skylights—Wasco Products, Inc., 9163 Fairview Avenue, San Gabriel, Calif. **Translucent Glass**—"Factrolite," Mississippi Glass Company, 88 Angelica Street, St. Louis, Missouri

Steel Fabrication—Lee & Daniel Steel Corporation, 1461-1465 Walnut Street, Pasadena, California

Plastic—Filon Plastics Corporation, 2051 East Maple Street, El Segundo, California

DOOR & SASH

Steelframed Sliding Glass Doors—Arcadia Metal Products, Inc., 801 South Acacia Street, Fullerton, California

Interior Sliding Wooden Door Frames—Ostling Manufacturing Company, El Monte, California

Tub Enclosure—Stitch Bros. Manufacturing Company, 831 Venice Boulevard, Los Angeles, California

Ventilating Sash—Louvre Leader, The Keiner Company, 1045 Richmond Street, Los Angeles 33, California

FINISHES

Texture 1:11—Douglas Fir Plywood Association

Duraply—Douglas Fir Plywood Association

2-4-1 Plywood—Douglas Fir Plywood Association

Cabinet Plywood (Vertical Grain)—Douglas Fir Plywood Association

Ceramic Tile in Baths—Pomona Tile Manufacturing Company, 629 North La Brea Avenue, Hollywood 38, California

Ceramic Tile (Bass Relief)—Pomona Tile Manufacturing Company

Plastic Laminates—Formica Corporation, 4605 Spring Grove, Cincinnati, Ohio

Quarry Tile—Summitville Face Brick Company, Summitville, Ohio

Vinyl Flooring—"Econolast," Vinyl Plastics, Inc., Sheboygan, Wisconsin

Sheetrock—United States Gypsum Company

Redwood—California Redwood Association, 576 Sacramento Street, San Francisco 11, California

ELECTRICAL

Heating and Air Conditioner—"Vornado," Central System Air Conditioning. Distributed by Sues, Young & Brown, Inc., 3636 South Bronson Avenue, Los Angeles, California

Intercom-Radio System—G & M Equipment Company, Inc., 7315 Varna Avenue, North Hollywood, California

Light Fixtures—Holliday Lighting Company, 1633 South La Cienega Boulevard, Los Angeles 15, California

Ventilation Fans—Pryne Blo-Fan, Emerson-Pryne Company, 526 East 12th Street, Los Angeles, California

Receptacles—Bryant Manufacturing Company, 2020 Montcalm Street, Indianapolis 7, Indiana

Receptacle Plates—McDonnell & Miller, Inc., 3500 North Spaulding Avenue, Chicago 18, Illinois

Trolley Duct—Square D, Bulldog Electric Products of Los Angeles, 2885 East Washington Boulevard, Los Angeles California

FIXTURES & APPLIANCES

Built-In "Food Center"—NuTone, Inc., 237 West 30th Street, Los Angeles, California

Plumbing Fixtures—Crane Company, 321 East 3rd Street, Los Angeles, California

Dishwasher—Waste King Corporation, 3300 East 50th Street, Los Angeles, California

Garbage Disposer—Waste King Corporation

Refrigerator—Frigidaire Corporation, 3251 Leonis Avenue, Los Angeles, California

Range and Oven—Frigidaire Corporation

Water Heater—Crane Company, 321 East 3rd Street, Los Angeles, California

Door Locksets—Schlage Lock Company, 3467 West 8th Street, Los Angeles, California

FURNISHINGS, DRAPERIES & CARPETING

All Furniture—Carroll Sagar & Associates, 8833 Beverly Boulevard, Los Angeles California

Dining Room Cloth Screen—Webb Textiles, Inc., 2010 Lincoln Street, Pasadena, California

Carpeting—Firth Carpet Company, 295 - 5th Avenue, New York, New York. Installation by Byron Eddy, 1577 Colorado Boulevard, Pasadena, California

GARDEN

Garden Fence—California Redwood Association, 576 Sacramento Street, San Francisco 11, California

Swimming Pool—Anthony Pools, 3880 East Colorado Boulevard, Pasadena, California

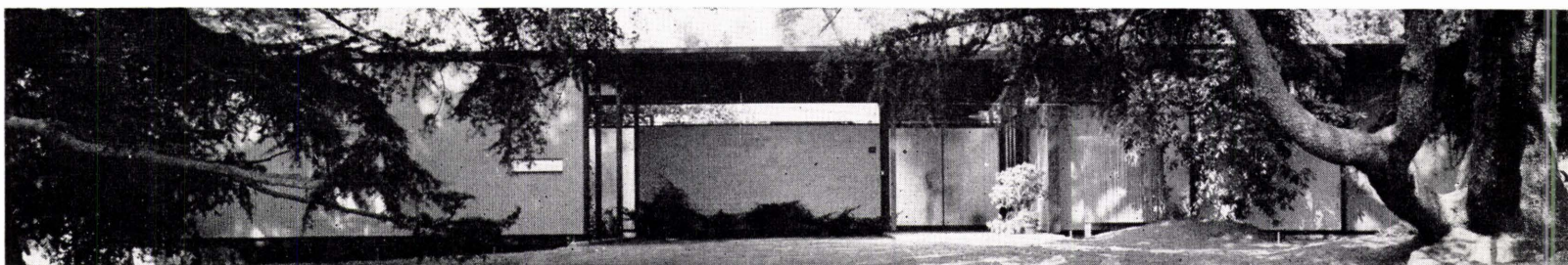
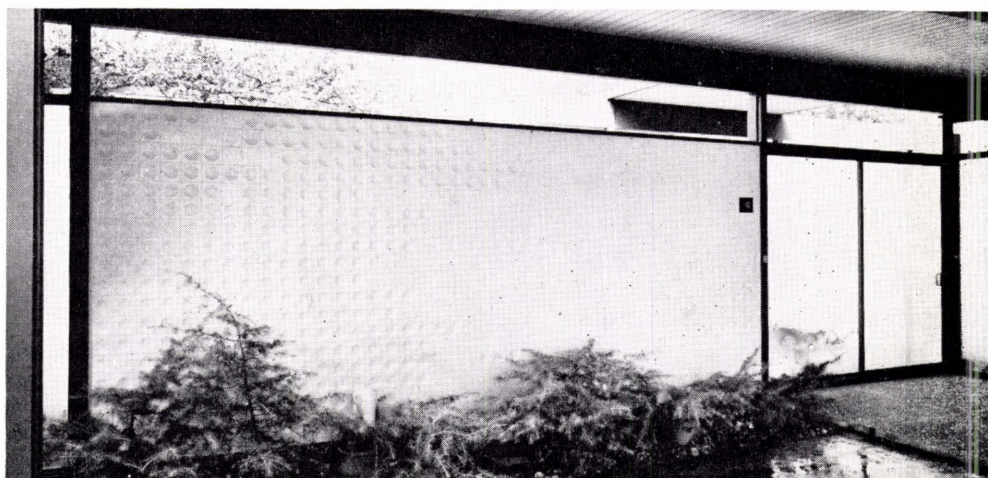
pomona's exciting new SCULPTURED TILE ... selected for case study house no. 20

The most dramatic new concept in tile design . . . "Sculptured Tile" created by Saul Bass . . . and used in his own home, Case Study House No. 20 designed by Buff, Straub & Hensman.

In addition to the "Sphere" pattern used in his home, two other 3-dimensional "Sculptured Tiles" were designed by Mr. Bass . . . "Diamond" and "Star". Available on 4¼" x 4¼" modules in 42 decorator colors.

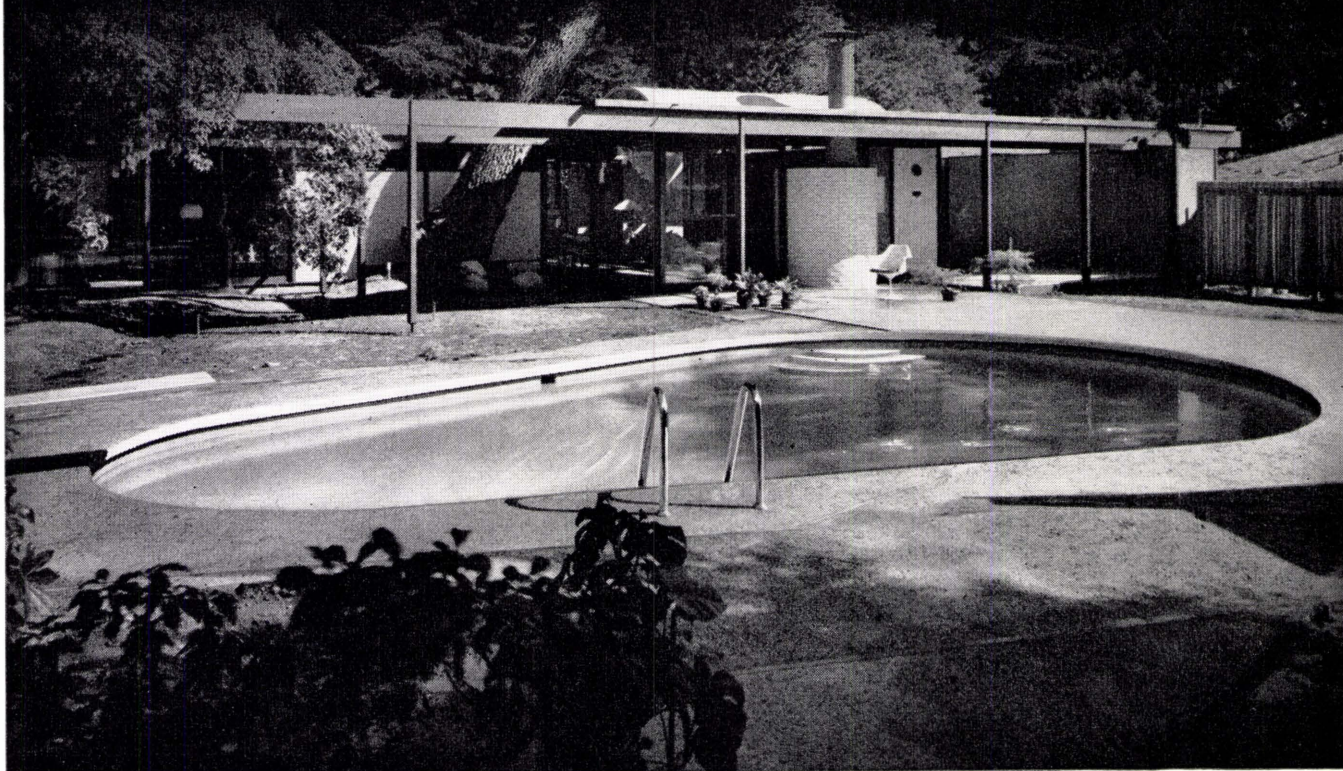
POMONA TILE MANUFACTURING CO.

Los Angeles 36, California/Los Angeles, Baldwin Park, Pomona, North Hollywood, Long Beach, Sacramento, San Francisco, Seattle, Salt Lake City, Phoenix, Oklahoma City, Denver, Dallas, Fort Worth, Wichita, N. Kansas City, St. Louis, Detroit, Chicago, Arkansas City, Nashville. Represented in New York City and Washington, D. C., by Laverne, Inc.



ANTHONY'S

anniversary gift to you!



MERIT SPECIFIED: BY BUFF, STRAUB, AND HENSMAN, FOR CASE STUDY HOUSE NO. 20

FREE! DELUXE \$325 POOL HEATER

remember this ad?

Almost a thousand families took advantage of the most exciting pool value in our history. In planning our Anniversary celebration, we added a bonus of year-round swimming fun. A luxurious Blue Oval pool, complete with our *premium quality heater* for only \$2295; just to say "Thanks for helping celebrate our 21st birthday."

But, even the best party can't last forever.

So call or visit our beautiful showrooms, today.



15' x 30' CONCRETE POOL

\$2295

3 TO 5 YEAR FINANCING

"BLUE OVAL" POOL INCLUDES THESE FEATURES:

- MACKINTOSH RUSTPROOF FILTER • BRASS PUMP
- COPPER PIPING • BRASS STRAINER AND VALVES
- AUTOMATIC SKIMMER • 6" WATERLINE TILE
- UNDERWATER LIGHT • MARBLE-WHITE FINISH
- COPING COLOR CHOICE • 10-FOOT DIVE BOARD
- FILTER HOUSING • FILTER CLOCK CONTROL
- STEEL REINFORCED CONCRETE — 3' TO 8' DEEP

GUNITE POOLS START AT \$2000 • FIBERGLASS POOLS AS LOW AS \$1,095 •

*Prices slightly higher in some areas • Prices based on normal soil and access

ANTHONY ^A POOLS

world's largest pool builder

SHOWROOMS: SOUTH GATE, 5871 FIRESTONE BLVD — SP 3-2210, TO 1-0381 • POMONA, NA 9-8549
 SHERMAN OAKS, 13363 VENTURA — State 9-4631, Stanley 7-3965 • HOLLYWOOD, 8412 BEVERLY BLVD — WE 3-5583, CR 5-8801 • SANTA ANA, KI 3-4448 • GLENDALE, CI 3-7756
 PASADENA, 3880 E. COLORADO BLVD — SY 3-2736, RY 1-8326 • HAWTHORNE, OS 6-6359 • COVINA, ED 9-8934 • SAN BERNARDINO, Turner 4-7998 • RIVERSIDE, OV 4-0910

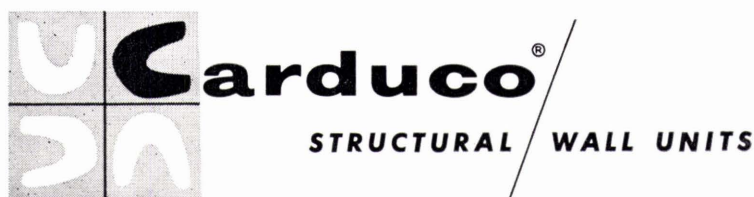


In order to achieve a desired architectural effect in a building it is standard practice to specify two materials—a Structural material, and a Veneer for decorative interest— $S + V$.

When you specify CARDUCO, one concrete building material does both jobs because CARDUCO is structural and decorative— $S + V = C$.

CARDUCO Structural Wall Units are available in a variety of textured and patterned surfaces.

**CARDUCO builds Great Walls . . .
specify CARDUCO**



for detailed information call Jackson 7-2241
or write CARDUCO, Box H, Stanton (Orange County), Calif.

MUSIC

(Continued from Page 9)

that usually preponderates at sessions devoted haphazard to new music. Compared with either of the quartets by Imbrie or the quartet by Smith it has all its virtues on the surface, an admirable surface, thoroughly worked in a tight Latin manner with no softness or sagging.

The styles of these quartets are rather iridescent than translucent: one hears them but does not hear through them. Nor, on the whole, does one hear the movements as movements; they are changes of expression or tempo, effectively managed, within a continuum of style. The central slow movement rather than the first movement sets the character, remaining as decisive when displaced to the beginning or the end. The character of the whole, like that of the slow movement, is invariably lyrical, elegiac, counterpointed, not, even when it desires to be, dramatic. The scheme will not carry a heavy load. It asks and rewards attention; it does not enforce listening. Whether or not a row is used, the extended lyricism is already in the line of Schoenberg, away from the more evidently delimited movements of Debussy, Ravel, Bartok, Hindemith. (In this way an historically focal style assumes responsibility for results it may not have influenced.) Instead of a decisive awareness of movements, there is a constant discovery of passages. Imbrie's Third offers a delightful passage of pizzicato intervals that seem borrowed from the scale and playing style of the Japanese koto. These differ from the traditional quartet in that style-content does not distinguish the material, rather the detail of working, not the working-out. They are put together like fine furniture, hiding the connectives.

I do not assert this for a weakness; it is a lesser attainment. Schoenberg's quartets or Bartok's will sustain the contest with late Beethoven. These will not. Yet the manner is pregnant with possibility of an art not to be compared with the French or German. These composers are our own, for all they are eclectic, very much our own. We need to know them very well, to enjoy them without apology; there is the germ of our future in them. One can build styleless vehicles and win popular acceptance, by putting together patterns, reminiscent of an older convention, that do not demand close listening. One can compose a *John Brown's Body*, as successful as Benét's long poem, and be no nearer a native art. These quartets approach that unknown ground. I would say to these composers that they have studied already enough Schoenberg and need to assimilate the less obviously congenial Second Quartet by Charles Ives, idiom rooted firmly in our continent. We need fewer pleasing effects, less of the sophisticated technical display which appeals from academician to academician. We have read enough of the attacks directed against Stravinsky's recent elder music to know how roughly any young American composer would be handled who began with such an idiom. Are our composers unwilling to invite such treatment, as the composers whom we now most honor invited it when they were young men? We need to teach our native writing how to speak, to argue as Ives does, and to sustain a polyphony outside and beyond the bounds of acceptable counterpoint. Of all American, and indeed modern composers, only Ives can challenge Beethoven at that extreme where he is most intransigent.

I have held aside the Quartet by William O. Smith not because it is point for point a better work than the others: for two reasons. His separate movements are more distinctively bound together by rhythmic devices learned from but not imitative of jazz. Thus he is able to present very nearly a true scherzo, instead of the scherzoid interjections of the other quartets. There is also a scherzo in the Imbrie Third. And he manages a four-movement scheme so ably that he might, by casual observation, be thought a conservative. True modern conservatives, however, are more wedded to a post-romantic unitary assemblage, fractioned rather than divided into movements. And Smith is a master not so much of that counterpoint which proceeds point to point, occasionally reminding the hearer of the listening past by returning the nodule of a thematic figure, as of that grander art which proceeds forward adding effect to cause until the full amplitude of his effect has been conveyed. Compare the succession of small fugal passages ending the third movement of his quartet with the rather similar succession in the Finney quartet. The one has a breadth reaching towards polyphony, the other is by comparison tightly and academically worked.

To sum up: if I were to choose from these six quartets an evening's entertainment, I should elect to open with the Guarnieri, short, apropos, and not too demanding of the listener. I should put next the Quincy Porter, for the delight of its melody, and follow it by the

PRODUCTS

merit specified

For Case Study House No. 21

Designed by Pierre Koenig, architect

The following are specifications developed by the architect for Case Study House No. 21 and represent a selection of products on the basis of quality and general usefulness that have been chosen as being best suited to the purposes of the project and are, within the meaning of the Case Study House Program, "Merit Specified." As the house progresses, other specifications will be noted.

Steel Deck—Stran-Steel, a division of National Steel Corporation, Detroit, Michigan
Steel Studs—Stran-Steel, a division of National Steel Corporation, Detroit, Michigan
Sliding Doors—Bellevue Metal Products, 1314 East First Street, Los Angeles 33, California

Wall Board—Kaiser Gypsum Company, Inc., 1401 Water Street, Long Beach, California

Pool Drains—Josam Pacific Company, 1258 South Boyle, Los Angeles, California

Kitchen Equipment—General Electric Company, 2957 East 46th Street, Los Angeles, California

Interior Walls—Vaughan Interior Walls, Inc., 11681 San Vicente Boulevard, Los Angeles 49, California

Steel Framework—Lee and Daniel Steel Fabricators, 1461 East Walnut Street, Pasadena 4, California

Insulation—Owens-Corning Fiberglas Corporation, 3445 West Eighth Street, Los Angeles 5, California

Fans—Emerson-Pryne Company, 526 East 12th Street, Los Angeles, California

Flush Lighting Fixtures—Emerson-Pryne Company, 526 East 12th Street, Los Angeles, California

Surface Lighting Fixtures—Litecraft Company, 545 Ropier Street, Glendale, California

Rittenhouse Door Chimes—Emerson-Pryne Company, 526 East 12th Street, Los Angeles, California

Waterproofing and Corrosion Preventive Materials—The Lee Potter Company, 418-B North Avenue, Glendale 6, California

Koolshade Sunscreens—Stewart Manufacturing Company, 3645 San Fernando Road, Glendale 4, California

Interior Patio and Bath Ceramic Tile—The Mosaic Tile Company, Zanesville, Ohio

Plumbing Fixtures—American Standard Company, 1151 South Broadway, Los Angeles, California

Terrace Paving—Davidson Brick Company, 4701 Floral Drive, Los Angeles 22, California

Reflecting Pool Pumps—Peerless Pumps, 301 West Avenue 26, Los Angeles 31, California

Carpeting—Carpets of Distinction, 2009 Burbank Boulevard, Burbank, California

ADRIAN WILSON & ASSOCIATES, Architects — Engineers




DANIEL, MANN, JOHNSON & MENDENHALL, Architects and Engineers

averycolor Quality Prints offer great new advantages in

COLOR RENDERING REPRODUCTION

More accurate color rendition... less fading... longer lasting...

Reorder by phone without sending the original art. We hold a master color negative. Maximum 3 day service. Free pickup and delivery within a ten mile radius of our laboratory.

HOLLYWOOD 5-7193

avery color laboratories

1529 North Cahuenga Blvd./Hollywood 28, Calif.

Imbrie Third, to ensure close listening. Then I would have an intermission and set after it, alone, the Quartet by Smith, which would gain by and sustain the preparation. I should be very proud of that evening and gratified if my four players were able to perform the whole of it as well as the Stanley Quartet, for the Finney and the Porter; the California or the Walden Quartets, for the Second and Third Imbrie; or the Amati Quartet, a group of Los Angeles women, for the Smith. If I were to present that program here, I should ask the Amati Quartet to play it. An alternative program would begin with the Second Imbrie and continue through the Porter, the Guarneri, and the Smith. My exclusion of the Finney Quartet should not be taken as a detraction from its fine qualities. It is less only among peers.

Well now, son, after all this talk you have been letting loose of, which of these five would you denominate a genius? —Sorry, pappy, we ain't met him yet.

Do not believe, however, that you have been invited to waste time on composers unknown, poverty-stricken, and neglected. The Guarneri Quartet was recorded by Angel for UNESCO. Quincy Porter has studied with Horatio Parker and Vincent D'Indy. He is one of a number of American composers who have been guided by Ernest Bloch, a school not less distinguished, if less publicized, than that of Nadia Boulanger. A Yale professor, he has enjoyed the chief formal honors paid to a musician on this continent: Fellow of the National Institute of Arts and Letters, a commission by the Coolidge Foundation for the Library of Congress, a Guggenheim Fellowship, a Pulitzer Prize. He has everything a live composer can normally wish, except a demanding public. You say that if he is to expect a public, he must deserve it! You say, let him go write a popular ballet! You say, let him prove that, like Aaron Copland, he can compete in popular melody with Gershwin. Let him travel among the lively arts like Leonard Bernstein! Let him write music people want to hear! —What have you ever done to deserve what he has written? Who makes the choices for you of what you call music?

William Smith has studied with Milhaud and Sessions, received

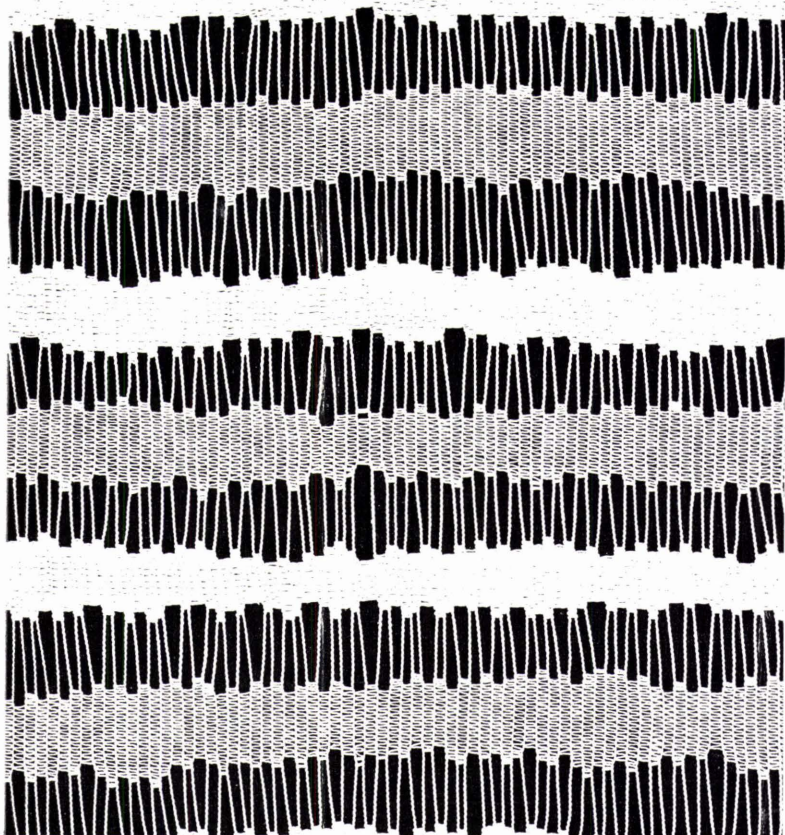
the University of California's Prix de Paris; the Quartet won him the Phelan award, and in 1957 he received a Prix de Rome. Ross Finney is Professor of Composition and Composer-in-Residence (mixture of esthetic governess and esthetic bear) at the University of Michigan. He has received numerous prizes including the Pulitzer, two Guggenheim Fellowships, a Boston Symphony Award, an Academy of Arts and Letters Award, and a Rockefeller Grant. He studied with Nadia Boulanger and Alban Berg. Andrew Imbrie is also a Boulanger pupil; he has worked besides extensively with Sessions. An Associate Professor at the University of California, he has won a Prix de Rome. His First Quartet, written as a Senior Thesis at Princeton brought him the New York Critics' Circle Award. Both his Second and Third Quartets were composed to paid commissions. These composers have been shapers of American music. What is needed now is a composer big enough to take it away from them.

Serious listeners here and there believe Elliott Carter may be the one. His 45-minute Quartet won the International Prize for Composition at the Brussels Concours the last time round. I do not have it here for review, but I shall say frankly that when I heard it I was thoroughly disappointed with it. The so-called rhythmic counterpoints for which it is famed trouble the players more than they disturb, direct, or elevate the listener. The forced style displays, as do the mannerisms of nearly all the European tone-row radicals, too many of the recognizable twelve-tone clichés. Though the workmanship is daring, it does not stand up independent. The more deliberately radical tone-row composers make what are now the more obvious mistakes. Neither Schoenberg nor Webern encouraged radicalism for its own sake. Such overt radicalism is the work of disciples who borrow theory and forget its purpose.

I once asked Henry Cowell why he has written no string quartets. He answered that he could see no special virtue in the combination of two violins, viola, and cello which could not be as well or better managed by other combinations of four instruments. Cowell's Toccata (the name combines toccata and cantata) was written for two families of friends, Otto Luening, flutist, and Ethel Luening,

JACK LENOR LARSEN'S

1959 collection of textiles may be seen for the first time anywhere at KNEEDLER-FAUCHERE, 144 North Robertson Blvd., Los Angeles.



soprano, Ernst Bacon, pianist, and his wife Anna Lee Camp, cellist. It is a wordless vocalise in melismatic style, the voice weaving over and among the three independently moving instruments, a lovely lyrical design with no pretensions to anything but beauty. Among the large body of Cowell compositions I know—and there are far more I don't know—this is my favorite.

Cowell's knowledge of music covers the entire field, instruments and instrumentalists, conductors and musical politics, musicology and the latest thing in recondite experiments. When John Cage directed his momentarily famous *Concerto for 12 Radios and 24 Performers* (two players to each radio twitching the dials) Cowell, recognizing the worth of the project, objected that it had been carried through too hastily. As conductor, pianist, critic, publisher, friend, Cowell has been an unceasing propagandist for every variety of unfamiliar music, American, Near Eastern, Oriental, percussion, theremin. As publisher of *New Music Quarterly* he has brought to print some of the most unprintable and a large share of the most interesting composers of his lifetime. When I was last with him, in New York, his publishers had just set him free of all other activities by awarding him a permanent salary for life. He set out the next day, by air, for a trip around the world. Arriving over Iran his plane, so the story goes, was met by a squadron of the Iranian Air Force; pamphlets were dropped heralding his arrival; he was invited to spend the winter at Tehran as guest of the government. In gratitude for these unexpected favors he composed his *Persian Set* in flowing parts based on four Iranian modal tetrachords, for a small western orchestra and tar, "a beautifully shaped, double-bellied, three-stringed Persian instrument of very elaborate technique."

He writes of the *Set*: "This is a simple record of musical contagion, written at the end of a three-months' stay in Iran, during which I listened for several hours nearly every day to the traditional classic music and the folk music of the country—at concerts, at private parties, at the National Conservatory for Traditional Iranian Music (where the instructors gave wonderful demonstrations of virtuosity for my benefit), and at Radio Tehran. Tape recordings at the Department of Fine Arts were especially helpful in displaying the rich

variety of music in regions too difficult to visit in mid-winter."

If Cowell is not the great American composer, he is a rich source of American musical enthusiasm. And where in America could an Iranian composer have been given such a welcome? After so much excitement the *Persian Set* very slightly disappoints. Inside the Iranian context can be heard, faintly, a suggestion of Ravel's *Bolero*. But a conductor wishing to have a field day with small orchestra, at not too great expense, could not do better than perform this *Persian Set**

*Works of half this quality, imported from Russia, have received the accolade of public performance by our largest orchestras. The record of *Persian Set* is directed by Leopold Stokowski, who has generously and wisely lent his experience and prestige, during recent years, to performing and recording many works by American composers. He conducted the *Persian Set* this year in the farther depths of Russia.

Next month I shall continue this discussion of American composers.

ART

(Continued from Page 5)

of informal art. Floating space with asymmetrical amorphous forms another. With all this, as a secondary effect, there was a shift away from traditional techniques and an emphasis on matter itself as the agent in painting.

Thus, with poetic, psychological subjects established, and a new convention for perspective (since, in spite of all good intentions, the all-over meander is a convention) firmly posited, the informal movement became categorical.

Now, if indeed, it was "other" and out of time and place, that would be the end of the history. But as it is self-generating, and as it has the basic ingredients for development, informal art, if not loved to death, still has a way to go. Gratuitous publicity and vogue-making doesn't help the young artist make an original work of art in which his acknowledgment of the new convention is just a point of departure and not an end in itself. Also, no matter how wild the experiments are in the informal group publicized today, they still indicate the artists' basic allegiance to easel painting. Since that is the case, these artists must learn to accept the philosophical limitations of easel painting and to express original insights within and in spite of those limitations. The maturity of the informal style depends on this.

CASE STUDY HOUSE NO. 21—KOENIG

(Continued from Page 29)

material is applied with a gun, and when dry is a true rubber that seals and adheres to both surfaces.

Blue Mosaic tile has been selected for the central patio and bath core, and granite Mosaic tile will be used for most of the walls in this area. The basic color, inside and out, is now flat white with black trim.

The house will be completed soon after this progress report, and dates will be announced when it will be available for public inspection.

NOTE IN PASSING

(Continued from Page 11)

ensure the architectural and material balance of the whole. The roof is of steel, the suspended walls of plastic or glass form a very light covering. Thus, with one central base and at minimum cost, 2000 sq. metres of ground have been covered.

The United States pavilion appears the most classical, an immense rotunda in a discreetly modern style. But the technical solution is audacious and here, too, the building is suspended. A series of pillars 40 centimetres in width form a circle 250 metres in diameter. Cables attached to the top of the columns support a metal ring in the centre, and these cables, 120 metres long, support a light covering to from the roof, the centre inside the metal ring being left open to the sky. The outer walls are suspended around the circle of columns.

Facing it, the pavilion of the USSR seems even less revolutionary. But here again, and this time on a rectangular plan, the walls are suspended from a structure of columns.

The visitor to the Brussels Exhibition may well be struck by the different architectural forms: the most striking things, however, are not those which he sees, but rather those which remain hidden.

UNESCO

CURRENTLY AVAILABLE PRODUCT LITERATURE AND INFORMATION

Editor's Note: This is a classified review of currently available manufacturers' literature and product information. To obtain a copy of any piece of literature or information regarding any product, list the number which precedes it on the coupon which appears below, giving your name, address, and occupation. Return the coupon to *Arts & Architecture* and your requests will be filled as rapidly as possible. Items preceded by a check (✓) indicate products which have been merit specified for the Case Study Houses 18, 19, 20, 21.

INTERIOR DECORATION— HOME STUDY

(8288) Approved supervised home study training in all phases of interior decoration. Ideal supplementary course for architects, builders, designers. No classes. No wasted time. Text and work kit furnished. Low tuition payments. Send for free booklet. Chicago School of Interior Decoration, Dept. 8288, 835 Diversey Parkway, Chicago 14, Ill.

APPLIANCES

✓(316a) Automatic Dishwashers: Waste King Super Dishwasher-Dryers with complete flexibility in the selection front panels. Any color, any metal finish, any wood panel may be used to match other kitchen colors or cabinets. Seven major benefits and ten exclusive features including humidity-free drying which keeps all hot, steamy air inside the tub. Complete information and specifications available on request. Waste King Corporation, 3300 East 50th Street, Los Angeles 58, California, LUdlow 3-6161.

CABINETS

(329a) Cabinet Work: Complete store and office interiors; factory finished and installed by skilled artisans. Architects' and designers' details faithfully executed. Expert consultation available on request. House Store Equipment Company, 8712 Mettler Street, Los Angeles 3, California. PLeasant 1-1156.

DOORS AND WINDOWS

✓(327a) Sliding Doors & Windows: The product line of Bellevue Metal Products consists of steel and aluminum sliding doors and a steel sliding window used for both residential and commercial purposes. Designed and engineered for easier installation and trouble-free service. Units feature live wool pile weather-strip for snug anti-rattle fit; bottom rollers with height adjusters at front and back; cast bronze or aluminum hardware and custom designed lock. Doors can always be locked securely and have safety bolt to prevent acci-

dental lockout. Catalog and price list available on request by writing to Bellevue Metal Products, 1314 East First Street, Los Angeles, California.

✓(244a) Sliding Doors & Windows: The full product line of Arcadia Metal Products entails a standard aluminum door used for residential purposes, heavy duty aluminum door for commercial work and finer homes, standard steel door for commercial and residential buildings and the standard aluminum window designed for architecturally planned commercial buildings and residences. For a 16-page informative catalog write to: Arcadia Metal Products, Dept. AA, 801 S. Acacia Avenue, Fullerton, California.

✓(273a) Jalousie Sash: Information and brochure available on a louver-type window which features new advantages of design and smooth operation. Positive locking, engineered for secure fitting, these smart new louver windows are available in either clear or obscure glass, mounted in stainless steel fittings and hardware with minimum of working parts, all of which are enclosed in the stainless steel channel. (Merit specified for Case Study Houses #17 and #20.) Louvre Leader, Inc., 1045 Richmond Street, Los Angeles 45, California. Phone: CApitol 2-8146.

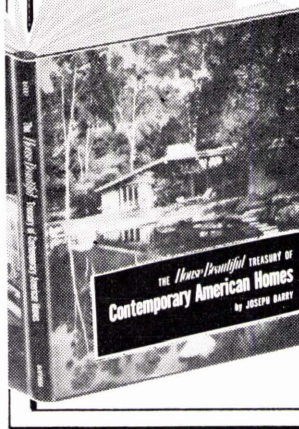
✓(202a) Sliding Doors and Windows: New 12-page catalog-brochure profusely illustrated with contemporary installation photos, issued by Steelbilt, Inc., pioneer producer of steel frames for sliding glass doorwalls and windows. The brochure includes isometric renderings of construction details on both Top Roller-Hung and Bottom Roller types; 3" scale installation details; various exclusive Steelbilt engineering features; basic models; stock models and sizes for both sliding glass doorwalls and horizontal sliding windows. This handsomely designed brochure is available by writing to Steelbilt, Inc., Gardena, California.

You are
invited
to visit

America's most beautiful
contemporary Homes
in 150 superb color pictures

The House Beautiful Treasury of Contemporary American Homes

by JOSEPH BARRY



A panorama of contemporary architecture in full-color photographs, floor plans and descriptions. Homes designed to suit every taste, every pocketbook, every climate—in locations from New England to Florida to California—and each one a masterpiece of its kind. Two full chapters on the great houses of the incomparable Frank Lloyd Wright add a marvelous bonus feature to this truly magnificent book. Huge 10½ x 13½"—identical in format to *The Treasures of Early American Homes* • \$12.95

HAWTHORN
BOOKS

70 FIFTH AVENUE • NEW YORK 11



FABRICS

✓(307a) Fabrics: Anton Maix Fabrics for architecture. Outstanding collection of printed designs by finest contemporary designers. Unique casement cloths for institutional requirements. Coordinated upholstery fabrics. Plastics & synthetics. Special finishes. Transportation materials. Custom designs. Nat'l sales office—162 E. 59th St., N. Y. 22, N. Y. Showrooms in Los Angeles, San Francisco & New York. Write for illustrated brochure and coordinated swatches: L. Anton Maix, 162 East 59th Street, New York 22, New York.

(322a) Fabrics: Prize-winning design source, Laverne Originals, offers a complete group of architectural and interior drapery fabrics—handprints on cottons, sheers, all synthetic fibers and extra strong Fiberglas in stock and custom colors. Suitable casement

cloths for institutional requirements. An individual designing service is offered for special projects. Coordinated wall coverings and surface treatments are available for immediate delivery, moderately priced. Write for complete illustrated brochures and samples. Laverne, 160 East 57th Street, New York 22; Phone PLaza 9-5545.

(171a) Contemporary Fabrics: Information one of best lines contemporary fabrics by pioneer designer Angelo Testa. Includes hand prints on cottons and sheers, woven design and correlated woven solids. Custom printing offers special colors and individual fabrics. Large and small scaled patterns plus a large variety of desirable textures furnish the answer to all your fabric needs; reasonably priced. Angelo Testa & Company, 49 East Ontario Street, Chicago 11, Illinois.

T H E M A G A Z I N E

arts & architecture

3305 WILSHIRE BOULEVARD, LOS ANGELES 5, CALIFORNIA

Please enter my subscription for year(s). My \$..... check is attached.

New ☐ Renewal ☐

NAME

STREET

CITY

ZONE

STATE

OCCUPATION

DOMESTIC RATES

1 Year\$ 5.00
2 Years\$ 9.00
3 Years\$12.00

FOREIGN RATES

1 Year\$ 6.50
2 Years\$12.00
3 Years\$15.00

1958 CHRISTMAS OFFER

For your holiday gift orders the magazine ARTS & ARCHITECTURE offers a FREE one year subscription, or extension, with every group of three gift subscriptions ordered at the special price of \$4.00 each. Regular rate is \$5.00 per year. This special offer expires December 31, 1958.

NAME _____

STREET _____

CITY _____ ZONE _____ STATE _____

1 OCCUPATION _____
GIFT FROM: _____ CARD: ☐ YES ☐ NO

NAME _____

STREET _____

CITY _____ ZONE _____ STATE _____

2 OCCUPATION _____
GIFT FROM: _____ CARD: ☐ YES ☐ NO

NAME _____

STREET _____

CITY _____ ZONE _____ STATE _____

3 OCCUPATION _____
GIFT FROM: _____ CARD: ☐ YES ☐ NO

Please send my free _____ subscription _____ extension to:

FREE NAME _____
STREET _____
CITY _____ ZONE _____ STATE _____
OCCUPATION _____
GIFT FROM: _____ CARD: ☐ YES ☐ NO

This offer applies in U. S. A. only. Please send orders to:

THE MAGAZINE

arts & architecture

3305 WILSHIRE BOULEVARD

LOS ANGELES 5, CALIFORNIA

for sale
\$32,500

modern hillside house in Silverlake, landscaped view site, 2 bedrooms and den, 1½ baths, large living room, built-in furniture, carpets, complete Hi-Fi system, all kitchen appliances built-in, radiant heating, insulation, professional darkroom in basement, flagstone patio. Excellent financing.

DU. 3-1161

house designed by Alvin Lustig

FURNITURE

✓(437) Furniture: Information best lines contemporary furniture, accessories, fabrics; chairs, tables in string and strap upholstery; wood or metal chair frames—Knoll Associates, Inc., 575 Madison Ave., New York 22, N. Y.

Contemporary Furniture: Catalog available on a leading line of fine furniture featuring designs by MacDougall and Stewart, Paul Tuttle, Henry Webber, George Simon, George Kasparian. Wholesale showrooms: Carroll Sagar & Associates, 8833 Beverly Boulevard, Los Angeles 48; Bacon & Perry, 170 Decorative Center, Dallas, Texas; Kenneth Donathin, 4020 North 34th Street, Phoenix, Ariz. Sales representatives: Scan, Inc., 102 South Robertson Boulevard, Los Angeles 48; Casa Goldtree Liebes & Cia., San Salvador, El Salvador, C. A. Experienced contract department at Kasparians, 7772 Santa Monica Boulevard, Los Angeles 46, California. For further information write on your letterhead directly to the above address.

(330a) Furniture: Herman Miller, Knoll and Moduform contemporary furniture for executive and general office areas in steel—all steel equipment (A S E) showroom and display facilities available to architects and their clients. Write to The Hart-Cobb-Carley Company, 2439 South Yates Avenue, Los Angeles 22, California.

(297a) Furniture: Brochure of photographs of John Stuart chairs, sofas and tables, designed by Danish architects of international renown. These pieces demonstrate the best in current concepts of good design. Included are approximate retail prices, dimensions and woods. Send 25c to John Stuart, Inc., Dept. AA, Fourth Avenue at 32nd Street, New York 16, New York.

(338a) Brown - Saltman / California. Brochures illustrating all elements and groupings of VARIATIONS modular furniture for living-room, dining room, bedroom. Please send 15¢ to: Brown-Saltman, 2570 Tweedy Boulevard, South Gate, California.

(296a) Contemporary Danish Furniture: New line featuring the "Bram-in" convertible sofa designed by Hans Olsen, awarded first prize at the annual Danish Furniture Exhibition; other noted architects and designers include Gunni Omann, Carl Jensen, Jens Hjorth, Bjerrum, Joho. Andersen, Hovmand Olsen and N. M. Koefoed. For further information, catalog and price lists write on your letterhead to: Selected Designs, Inc., 9276 Santa Monica Boulevard, Beverly Hills, California.

(270a) Furniture (wholesale only): Send for new brochure on furniture and lamp designs by such artists as Finn Juhl, Karl Ekselius, Jacob Kajaer, Ib Kofod-Larsen, Eske Kristensen, Pontoppidan. Five dining tables are shown as well as many Finn Juhl designs, all made in Scandinavian workshops. Write Frederik Lunning, Inc., Distributor for Georg Jensen, Inc., 315 Pacific Avenue, San Francisco 11, California.

(325a) Chairs: 10-page illustrated catalog from Charles W. Stendig, Inc., shows complete line of chairs in a variety of materials and finishes. The "Bentwood Armchair," "Swiss" aluminum stacking chair designed by Hans Coray, "H-H" steel and leather chair are a few of the many pictured. Well designed line; data belongs in all files. Write to: Charles W. Stendig, Inc., 600 Madison Avenue, New York 22, New York.

(138a) Contemporary Furniture: Open showroom to the trade, featuring such lines as Herman Miller, Knoll, Dux, House of Italian Handicrafts and John Stuart. Representatives for Howard Miller, Glenn of California, Kasparians, Pacific Furniture, String Design (manufacturers of shelves and tables), Swedish Modern, Woolf, Lam Workshops and Vista. Also, complete line of excellent contemporary fabrics, including Angelo Testa, Schiffer, Elenhank Designers, California Woven Fabrics, Robert Sailors Fabrics, Theodore Merowitz, Florida Workshops and other lines of decorative and upholstery fabrics. These lines will be of particular interest to architects, decorators and designers. Inquiries welcomed. Carroll Sagar & Associates, 8833 Beverly Boulevard, Los Angeles 48, California.

(323) Furniture, Custom and Standard: Information one of best known lines contemporary metal (indoor-outdoor) and wood (upholstered) furniture; designed by Hendrick Van Koppel, and Taylor Green—Van Keppel-Green, Inc., 116 South Lasky Drive, Beverly Hills, California.

LIGHTING EQUIPMENT

(965) Contemporary Fixtures: Catalog, data good line contemporary fixtures, including complete selection recessed surface mounted lense, down lights incorporating Corning wide angle Pyrex lenses; recessed, semi-recessed surface-mounted units utilizing reflector lamps; modern chandeliers for widely diffused, even illumination. Selected units merit specified for CSHouse 1950. Harry Gitlin, 917 3rd Avenue, New York 22, New York.

(782) Sunbeam fluorescent and incandescent "Visionaire" lighting fixtures for all types of commercial areas such as offices, stores, markets, schools, public buildings and various industrial and specialized installations. A guide to better lighting, Sunbeam's catalog shows a complete line of engineered fixtures including recessed and surface mounted, "large area" light sources with various, modern diffusing mediums. The catalog is divided into basic sections for easy reference.—Sunbeam Lighting Company, 777 East 14th Place, Los Angeles 21, California.

(119a) Recessed and Accent Lighting Fixtures: Specification data and engineering drawings of Prescolite Fixtures; complete range contemporary designs for residential, commercial applications; exclusive Re-lamp-a-lite hinge; 30 seconds to fasten trim, install glass or re-lamp; exceptional builder and owner acceptance, well worth considering.—Prescolite Manufacturing Corporation, 2229 4th Street, Berkeley 10, California.

(339a) Lighting: New Lighting Dynamics catalog featuring dozens of new architectural ideas for lighting, cost-range indicators for quick indication of cost. Complete photometric data done by the Interflectance method. Write to Lighting Dynamics, 802 West Whittier Boulevard, Whittier, California.

✓(255a) Lighting Equipment: Skydome, basic Wasco toplighting unit. The acrylic plastic dome floats between extended aluminum frames. The unit, factory assembled and shipped ready to install, is used in several Case Study Houses. For complete details write Wasco Products, Inc., 93P Fawcett St., Cambridge 38, Massachusetts.

(375) Lighting Fixtures: Brochures, bulletins Prylites, complete line recessed lighting fixtures, including specialties; multi-colored dining room lights, automatic closet lights; adjustable spots; full technical data, charts, prices.—Pryne & Company, Inc., 140 North Towne Avenue, Pomona, California.

(277a) Lighting Fixtures: Complete information on contemporary lighting fixtures by Chiarello-Frantz. Feature is "Light Puff" design: pleated, washable, Fiberglas-in-plastic shades with anodized aluminum fittings. Also in brass. Accessories include wall brackets, floor and table standards, and multiple canopy fixtures for clusters of lights. Write to: Damron-Kaufmann Inc., 440 Jackson Square, San Francisco 11, California.

(259a) Lighting Equipment: Booklet available on the "C-I Board," (Century-Izenour Board) first all electronic system for stage lighting control. Main elements are Preset Panel, Console Desk, and Tube Bank. Advantages include adaptability, easy and efficient operation, low maintenance. Write to Century Lighting, Inc., 521 W. 43rd St., New York 36, New York.

MISCELLANEOUS

(334a) The Averycolor reproduction is a color-fast, non-glare, satin-finish print of durable photographic stock, not acetate base material. Two years of research coupled with twenty years of experience in the photographic field have resulted in a revolutionary change in making reproductions from architectural renderings. Other services include black-and-white prints, color transparencies, custom dry mounting and display transparencies. For further information write: Avery Color Laboratories, 1529 North Cahuenga Boulevard, Hollywood 28, California.

✓(328a) Home Radio Intercom: Guardian MK-II provides entertainment, protection, convenience. Exclusive squelch feature automatically shuts off radio when baby's cry or unusual noise interrupts, transmits cry or noise, then radio resumes playing. Set also features fire warning system. When temperatures reach burning point, a loud electronic signal is sent through every station, including front door speaker so neighbors are alerted if you are away. Available in all colors; up to nine stations installed. Merit Specified for Case Study Houses No. 18 and No. 20. For brochure write to G & M Equipment Company, Inc., 7315 Varna Ave., North Hollywood, Calif. Phone: STanley 7-1624.

(240a) Swimming Pools: Anthony Pools introduces easy-to-operate rust-proof filter system with highly effective bacteria elimination. Nighttime illumination by underwater light. Special ladder a unique feature. Will design and build pool of any size. Terms can be arranged to customer's satisfaction. Write for brochure: Anthony Pools, Dept. AA, 5871 East Firestone Boulevard, South Gate, California.

(223a) Pryne Blo-Fan—Ceiling "Spot" ventilator: Newly available information describes in detail the principles and mechanics of Blo-Fan, an effective combination of the breeze fan and the power of a blower in which best features of both are utilized. Includes many two-color illustrations, helpful, clearly drawn diagrams, specifications and examples of fans of various types and uses. Blo-Fan comes in three sizes for use in various parts of the house and can also be combined with a recessed light unit, amply illuminating range below. For this full and attractive brochure, write to Pryne & Co., Dept. AA, 140 North Towne Avenue, Pomona, California.

(331a) Industrial Equipment: For shop and plant areas—Borroughs adjustable steel shelving and shop equipment, Lyon lockers, Royal industrial and cafeteria seating, GR Soundex partitioning, steel or wood floor to ceiling walls. Large warehouse stocks. Display facilities available to architects and their clients. Write to The Hart-Cobb-Carley Company, 2439 South Yates Avenue, Los Angeles 22, California.

(267a) Fireplace: Write for free folder and specifications of "Firehood," the conical fireplace, designed by Wendell Lovett. This metal open hearth is available in four models, black, russet, flame red and white, stippled or solid finish. The Condon-King Company, 1247 Rainier Avenue, Seattle 44, Washington. Southern California Representative: Scan, Inc., 102 South Robertson Boulevard, Los Angeles 48, California.

✓(323a) Heating and Cooling Systems: Racon Heating Systems are the result of over ten years of research and application in thousands of California homes, and in commercial, industrial, and institutional structures. The Racon Boiler is made in four sizes—from 90,000 BTU to 260,000 BTU. Racon Radiant Cooling in ceilings is a recent development with a promising potential. Racon Swimming Pool Boilers are used in direct fire and radiant heat installations of pool heating. For detail booklet write to: Racon Heating & Cooling Corporation, 795 Kifer Road, Santa Clara, California.

(956) Indoor Incinerator: Information Incinerator unit for convenient disposal combustible refuse, wrappings, papers, garbage, trash; gas fired, unit is 35" high, 22" in diameter, weighs 130 pounds, has capacity of two bushels; heavy steel plate combustion chamber; AGC approved; excellent product, merit specified CS-House 1952.—Incineration Division, Bowser, Inc., Cairo, Illinois.

(542) Furnaces: Brochures, folders, data Payne forced air heating units, including Panelair Forced Air Wall heater, occupying floor area of only 29 $\frac{3}{8}$ " x 9 $\frac{3}{8}$ "; latter draws air from ceiling, discharges near floor to one or more rooms; two speed fan.—Payne Furnace Company, Monrovia, Calif.

✓(286a) Built-In Vacuum Cleaning System: Highly efficient built-in central cleaning system for residences, institutions, and light commercial buildings. System features inlets in each room on wall or floor to allow easy reach with the hose and its attachments. From the inlets, tubing leads to the power unit which can be placed on service porch, garage or any spot handy for infrequent emptying of the large dust receptacle. System is dustless, quiet, convenient and practical for all rooms, furniture, fabrics, rugs, home workshops, cars and carports. Vacuums wet or dry surfaces. Write for information and brochure: Central Vacuum Corporation, 3667 West 6th St., Los Angeles 5, California. Phone DUnkirk 7-8131.

(225a) Kaiser Aluminum, for Product Design & Manufacture: A new 24-page booklet containing up-to-date information on Kaiser Aluminum mill products and services is now available. Includes data on aluminum alloys, forms, properties, applications and availability. An abundance of tables and charts throughout provides convenient reference material. Booklet may be obtained from Kaiser Aluminum & Chemical Sales, Inc., Industrial Service Div., Dept. AA, 1924 Broadway, Oakland 12, California.

ROOFING

✓(333a) Plywood Roof Systems: Berkeley Plywood Company Panelized Roofs are described in a brochure available to Architects, Engineers and General Contractors. The roof systems are engineered, fabricated and installed by Berkeley Plywood Company, who has pioneered development in plywood roof, wall and floor

STORE FIXTURE SALESMAN—Los Angeles Area. If you have the ability and character we will back you with organization, design and price. Topnotch man only, capable of earning \$10,000 or more selling direct to client or through architects and contractors. References. Reply to Box 5811, Arts & Architecture, 3305 Wilshire Boulevard, Los Angeles.

diaphragms and many other plywood building components. Write to Berkeley Plywood Company, 1401 Middle Harbor Rd., Oakland 20, Calif., or 4085 Sheila St., Los Angeles 23, Calif.

(223a) Built-up Roofs: Newest brochure of Owens-Corning Fiberglas Corp. outlining and illustrating advantages of a Fiberglas-reinforced built-up roof. A built-up roof of Fiberglas is a monolithic layer of waterproofing asphalt, reinforced in all directions with strong fibers of glass. The porous sheet of glass fibers allows asphalt to flow freely, assures long life, low maintenance and resists cracking and "alligatoring." The easy application is explained and illustrated in detail with other roofing products. Owens-Corning Fiberglas Corp., Pacific Coast Division, Dept. AA, Santa Clara, California.

SOUND CONDITIONING

✓(310a) Sound Conditioning: Altec Lansing Corporation, manufacturers of complete matched and balanced quality home high fidelity systems. (Merit Specified for Case Study House #18). Altec Lansing equipment includes tuners, preamplifiers, power amplifiers, loud speakers, loud speaker systems, and loud speaker enclosures. Complete

A is for Arts & Architecture

B is for Binder

C is for Christmas

- handsome, durable black cover
- conveniently holds 12 issues
- individual mechanism secures copies
- opens flat for easy reference
- title stamped in gold foil

\$2.75 each or 3 for \$8.00

ORDER YOURS NOW

make checks payable to Arts & Architecture

3305 Wilshire Blvd.

Los Angeles 5, Calif.

(add 4% sales tax in California)

FILL IN COUPON TO OBTAIN MANUFACTURERS' LITERATURE

arts & architecture

3305 WILSHIRE BOULEVARD LOS ANGELES 5, CALIFORNIA

Please send me a copy of each piece of Manufacturer's Literature listed:

No.	No.	No.	No.	No.
No.	No.	No.	No.	No.
No.	No.	No.	No.	No.

NAME

ADDRESS

CITY

ZONE STATE

OCCUPATION

NOTE: Literature cannot be forwarded unless occupation is shown.

118

home high-fidelity systems available from \$300.00 to \$1,600.00. Prices for professional and commercial equipment available upon request. Altec Lansing is the world's largest producer of professional sound equipment, and specified by leading architects the world over for finest reproduction of sound obtainable for homes, offices, stadiums, theatres, and studios. Engineering consultation available. For complete information write to: Altec Lansing Corp., Dept. AA, 1515 South Manchester Avenue, Anaheim, California.

SPECIALTIES

(152) Door Chimes: Color folder NuTone door chimes; wide range styles, including clock chimes; merit specified for several Case Study Houses.—NuTone, Inc., Madison and Red Bank Roads, Cincinnati 27, Ohio.

(426) Contemporary Clocks and Accessories. Attractive folder Chronopak contemporary clocks, crisp, simple, unusual models; modern fireplace accessories; lastex wire lamps, and bubble lamps, George Nelson, designer. Brochure available. One of the finest sources of information, worth study and file space.—Howard Miller Clock Company, Zeeland, Michigan.

(337a) Contemporary Serving Accessories: A running catalog on a comprehensive collection of dinnerware and serving components which can be combined in unlimited ways. Excellent for designers in working with clients. A continuing creative program within a nucleus of basic vessels in porcelain, ironstone, rockingham, earthenware, etc. Design directed by La Gardo Tackett, Imported by Schmid International, Distributed by Richards Morgenthau, 225 Fifth Avenue, New York, New York.

(247a) Contemporary home furnishings: Illustrated catalog presenting important examples of Raymor's complete line of contemporary home furnishings shows designs by Russell Wright, George Nelson, Ben Seibel, Richard Gelf, Arne Jacobsen, Hans Wagner, Tony Paul, David Gil, Jack Equier and others. Included is illustrative and descriptive material on nearly 500 decorative accessories and furnishings of a complete line of 3000 products. Catalog available on request from Richards Morgenthau, Dept. AA, 225 Fifth Ave., New York 10, New York.

(300a) Home Furnishings: A series of brochures illustrating its new line of contemporary home furnishings and decorative accessories is now available from Raymor. Clocks, wall decor, Scandinavian and domestic furniture, lighting, occasional furniture and many artware and decorative accents are among the units newly cataloged. All literature is available to the trade upon written request on professional letterhead. Inquiries should be addressed to Raymor, 225 Fifth Avenue, New York 10, New York.

(319a) Ceiling and Wall Fixtures: Complete line of contemporary ceiling and wall fixtures, residential and commercial, created by Denmark's leading architects and form designers. Materials featured are spun-metal with glass or teakwood. Also combinations of glass and teakwood, and other variations. Excellent choice of colors available in most fixtures. This exciting new line is of particular interest to architects and designers, and inquiries are invited. Nordic Imports, Inc., 7853 Seville Avenue, Huntington Park, Calif. Cable address: Nordimp. Phone: LUdlow 7-2977.

(252a) Stained Glass Windows: 1" to 2" thick chipped colored glass embedded in cement reinforced with steel bars. A new conception of glass colored in the mass displays decomposing and refracting lights. Design from the pure abstract to figurative modern in the tradition of 12th century stained glass. For brochure write to Roger Darricarrere, Dept. AA, 3716 Fletcher Drive, Los Angeles 65, California.

STRUCTURAL MATERIALS

✓(326a) Construction Plywood: A new fir plywood catalog for 1958 has been announced by the Douglas Fir Plywood Association. Indexed for A.I.A. filing systems, the three-part, 20-page catalog presents basic information on fir plywood standard grades and specialty products for architects, engineers, builders, product design engineers, and building code officials. Sample copies may be obtained without charge from: Douglas Fir Plywood Association, Tacoma 2, Washington.

(113a) Structural Building Materials: Free literature available from the California Redwood Association includes "Redwood Goes to School," a 16-page brochure showing how architects provide better school design to-

day; Architect's File containing special selection of data sheets with information most in demand by architects; Redwood News, quarterly publication showing latest designs; individual data sheets on Yard Grades, Interior Specifications, Exterior and Interior Finishes. Write Service Library, California Redwood Association, 576 Sacramento St., San Francisco 11, Calif.

(318a) Concrete Structural Wall Units: Design information and construction data available concerning Carduco, the most unusual building material made. Carduco is structural; approved by building codes; practically impervious to water without surface treatment. It is manufactured in patterned design components as well as textured and plain. Integral color is supplied to specifications. Where required Carduco can be furnished with a five-hour fire rating and built-in insulation with a K factor of 2; U factor of 0.31. Write Carduco, P. O. Box H. Stanton (Orange County), California.

✓(309a) Structural Material: New construction data now available on Hans Sumpf adobe brick. This waterproof masonry is fire-, sound-, and termite-proof, an excellent insulator—ideal for construction of garden walls, lawn borders and walks. The bricks come in 7 sizes ranging from 4 x 3½ x 16 to 4 x 12 x 16. For further information write for free booklet to: Hans Sumpf Company, Route No. 1, Box 570, Fresno, California.

(179a) Filon-Fiberglas and nylon reinforced sheet: Folder illustrating uses of corrugated or flat Filon sheets in industry, interior and outdoor home design and interior office design. Technical data on Filon together with illustrated breakdown of standard types and stock sizes; chart of strength data and static load. Additional information on Filon accessories for easy installation.—Filon Plastics Corporation, 2051 East Maple Avenue, El Segundo, California.

(208a) Texture One-Eleven Exterior Fir Plywood: This new grooved panel material of industry quality, is in perfect harmony with trend toward using natural wood textures. Packaged in two lengths and widths; has shiplap edges; applied quickly, easily; immune to water, weather, heat, cold. Uses include: vertical siding for homes; screening walls for garden areas; spandrels on small apt., commercial buildings; inexpensive store front remodeling; interior walls, ceilings, counters. For detailed information, write Dept. AA, Douglas Fir Plywood Association, Tacoma 2, Washington.

SURFACE TREATMENTS

(283a) Ceramic Tile: Write for information on new Pomona Tile line. Available in 42 decorator colors, four different surfaces, 26 different sizes and shapes. Ideal for kitchen and bathroom installations. Pomona Tile is practical; lifelong durability, resists acids, scratches and abrasions, easy to keep clean. No wax or polish necessary, exclusive "Space-Rite" feature assures even spacing. Top quality at competitive prices. Pomona Tile Manufacturing Company, 629 North La Brea Avenue, Los Angeles 36, California.

(324a) Surface Treatments: "Byzantine—by Mosaic." This new illustrated booklet describes the brilliant new ceramic mosaic patterns for floors and walls, indoors and out. Byzantine offers great latitude in color, scale and decorative effect. For full details ask for form #219. For information about the use of Mosaic Ceramic Tile in institutional and commercial buildings write for—"Mosaic Ceramic Tile; basic floor and wall material in buildings of today"—form #208. "The Mosaic Tile Book of Beautiful Homes" (form #195-WCR) is a 16-page booklet especially designed for homemakers. Write to: The Mosaic Tile Company, 829 North Highland, Hollywood 38, California.

(306a) Acrylite: New catalog available on Acrylite, an important new material for interior and exterior design. Acrylic sheets in which a variety of designs and textures have been embedded provide new design technique for separate living, dining kitchen, and other areas in a way that room dividers and panels become a central decorative feature in the room. May be coordinated with drapery and upholstery designs, as well as colors. Wasco Acrylite is sold as a panel or by the square foot, with varying thickness, size and design embedments. Send for complete information, Wasco Products, Inc., 93P Fawcett St., Cambridge 38, Mass.

(336a) Surface Treatments: Vitrocem glazed cement finishes are being used by more and more architects where a hard, durable impervious surface is essential. Available in unlimited colors and multi-color effects, it is being used for interior and exterior over all types of masonry and plaster surfaces and over asbestos panels for spandrel and window-wall construction. For information and samples, please write to Vitrocem, P.O. Box 421, Azusa, California. EDgewood 4-4383.

STATEMENT REQUIRED BY THE ACT OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, AND JULY 2, 1946 (Title 39, United States Code, Section 233) SHOWING THE OWNERSHIP, MANAGEMENT, AND CIRCULATION OF Arts & Architecture, published monthly at Los Angeles, California, for October 1, 1958.

- The names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, John D. Entenza, 3305 Wilshire Boulevard, Los Angeles 5, California; Editor, John D. Entenza, 3305 Wilshire Boulevard, Los Angeles 5, California; Managing Editor, None; Business manager, none.
- The owner is: John D. Entenza, 3305 Wilshire Boulevard, Los Angeles 5, California.
- The known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: None.
- Paragraphs 2 and 3 include, in cases where stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner.
- The average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the 12 months preceding the date shown above was: (This information is required from daily, weekly, semiweekly, and triweekly newspapers only.)

Sworn to and subscribed before me this 23rd day of September, 1958.

JOHN D. ENTENZA, Editor, Publisher, Owner
R. BOYER

(Seal)

Notary Public
In and for the County of Los Angeles,
State of California
(My commission expires July 7, 1961)

555

SPRINGS

THE

HERMAN WHEELER

FURNITURE COMPANY

founded
1905

OPENING 30 OCTOBER

1958

BENJAMIN B. TAYLOR
MAPLE, N. CAR

AS

84" sofa



chair



ottoman

2 variations on a theme



102" sofa

K-5 series

single angle section

2 seater

double angle section

These newest additions to the Kasprians line are available in both tight and loose cushion back designs, and in a variety of lengths and shapes that solve most every seating arrangement problem. Send for our brochure detailing this series; on your letterhead, please.



KASPARIANS

7772 Santa Monica Boulevard, Los Angeles 46, California / OLdfield 4-5656

sales representatives: Scan, Inc., 102 S. Robertson Blvd., Los Angeles 48; Casa Goldtree, Liebes & Cia., San Salvador, El Salvador, C. A. wholesale showrooms: Contract Interiors, 402 PBMI Building, 333 W. Colfax, Denver, Colo.; Kenneth Donathin, 4020 N. 34th St., Phoenix, Ariz.; Bacon & Perry, 170 Decorative Center, Dallas, Texas; Carroll Sagar & Assoc., 8833 Beverly Blvd., Los Angeles 48